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# Bangladesh

## The Landscape of Early Childhood Education in Bangladesh

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## Abbreviations and Acronyms

APSC	Annual Primary School Census
AUEO	Assistant Upazila Education Officer
BEN	Bangladesh ECD Network
BRAC	Building Resources Across Communities
BSA	Bangladesh Shishu Academy
CAIF	Centros de Atención Integral Familiar
CECCDP	Comprehensive Early Childhood Care and Development Policy
CMC	Center Management Committee
CPECCD	Comprehensive Policy for Early Child Care and Development
CSR	Corporate Social Responsibility
CWP	Community Work Program
DPE	Directorate of Primary Education
DPEO	District Primary Education Office
ECCD	Early Child Care and Development
ECD	Early Childhood Development
ECDI	Early Childhood Development Index
ECE	Early Childhood Education
ELDS	Early Learning Development Standards
EPWP	Expended Public Work Program
EYPP	Early Years Primary Program
FINEEC	Finnish Education Evaluation Center
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GNI	Gross National Income
GoB	Government of Bangladesh
GPS	Government Primary School
HIES	Household Income and Expenditure Survey
IDELA	International Development and Early Learning Assessment
M&E	Monitoring and Evaluation
MICS	Multiple Indicator Cluster Survey
MoE	Ministry of Education
MoPME	Ministry of Primary and Mass Education
MoWCA	Ministry of Women and Children’s Affairs
NAPE	National Academy for Primary Education

NCTB	National Curriculum and Textbook Board
NEP	National Education Policy
NGO	Nongovernmental Organization
NNGPS	Newly Nationalized Government Primary School
OLS	Ordinary Least Square
PEDP	Primary Education Development Program
PEDP3	Third Primary Education Development Program
PEDP4	Fourth Primary Education Development Program
PEVS	Primary Education Voucher Scheme
PPE	Preprimary Education
PTI	Primary Teacher Training Institute
RNGPS	Registered Nongovernment Primary School
SABER	Systems Approach for Better Education Results
SCI	Save the Children International
SCR	Student-Classroom Ratio
STR	Student-Teacher Ratio
TLM	Teaching-Learning Material
UEO	Upazila Education Officer
UIS	UNESCO Institute for Statistics
URC	Upazila Resource Center

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## Executive Summary

**Early childhood education (ECE) is critical for improving child development outcomes and ensuring that the next generation of Bangladeshi children is better prepared for school.** Bangladesh has made remarkable progress in increasing access to school education and ensuring that more children complete school. However, it is estimated that while Bangladeshi children complete 11 years of schooling on average, their learning-adjusted years of schooling is only 6.5 years (World Bank 2018). Deficiencies in learning in the lower grades affect students' future learning potential and skills development, and subsequently hamper their performance in the job market. Inadequate student readiness at primary school entry is a key factor behind the poor learning outcomes in primary school and beyond. Hence, investing adequately in ECE to improve the school readiness of children needs to be a priority for Bangladesh.

**This report reviews the landscape of the ECE system in Bangladesh, focusing on the following key aspects related to the provision of ECE services:** (a) access and equity, (b) quality, (c) governance and management, and (d) financing. It is based primarily on a desk review of existing documents and literature on ECE, and quantitative analyses of existing survey data. The desk review focuses on policies, plans, and strategies; existing studies; and pertinent records related to ECE in Bangladesh. The quantitative analyses are based on data from two rounds of the Household Income and Expenditure Survey (HIES 2010, 2016–17); the Multiple Indicator Cluster Survey (MICS 2013); survey data from an ongoing impact evaluation of a small-scale ECE intervention in one district of the country; and administrative data from the Directorate of Primary Education (DPE). In addition, the study also uses some primary data collected using the World Bank's Systems Approach for Better Education Results (SABER) tool to analyze the governance and management status of ECE in Bangladesh.

### Main Findings and Policy Directions

#### *Access and Equity*

##### *Key Findings*

**Preprimary enrollment has improved substantially over the past few years through a combination of public and non-state providers.** The gross enrollment rate (GER) in preprimary education (PPE) increased from 24.7 percent in 2011 to 40.3 percent in 2017. The number of institutions offering PPE also increased during this period, with public provision accounting for almost half of all enrollments in 2017. While access to PPE has been improving over the years, Bangladesh remains a below-average performer among the countries in South Asia and a low performer compared to upper-middle-income and high-income countries in terms of GER.

**The preschool student population in the country includes a sizeable share of overaged male children although age-appropriate enrollment has improved over the years.** Among those enrolled in preschool, the majority of the children aged 5 to 12 years continue to be male, although the gender balance shifted slightly in favor of females among enrolled 5-year-olds between 2010

and 2017. Among children age 5, the share enrolled in preschool nearly doubled between 2010 and 2017, from 17 percent to around 33 percent. The share of 6-year-olds who attended preschool also increased but at a lower rate compared to 5-year-olds.

**There are notable disparities in access to ECE across socioeconomic groups and geographic areas.** Around 53 percent of 5-year-olds enrolled in ECE were male compared to 47 percent of females in 2017. Preschool participation tends to be much higher for children from well-off families compared to children from poorer households. Among 5-year-old children, the disparity in access between children from the poorest and richest families has declined, but a significantly larger share of children from poorer families are not enrolled in preschool or remain out of school. According to the most recent HIES 2016–17, around 30 percent of 5-year-old children from the poorest families were enrolled in preschool compared to 40.4 percent from the richest families in 2017. There are also notable disparities in access across geographic areas: children from rural areas are less likely to be enrolled in preprimary classes and there are significant differences in PPE enrollment rates across districts. Children with physical and/or cognitive disabilities constitute another category of targeted beneficiaries with low access to ECE. An analysis of available data shows that a child with a disability is 54 percent more likely not to be enrolled in preschool compared to a child with no disability, holding other factors constant.

#### *Policy Options*

- **Place special emphasis on children from socioeconomically disadvantaged families and children from rural areas when undertaking interventions aimed at improving access to ECE.** Poverty-targeted stipends in the form of conditional cash transfers could potentially be a good approach to increasing demand for and improving access to ECE for children from the poorest families. Additionally, a needs assessment for increasing access to ECE for children with disabilities and the development of a plan to facilitate their access to appropriate early learning programs would be critical.
- **Promote public-private partnerships to increase the provision of ECE in rural and remote areas, where public provision is low.** The nongovernment sector already accounts for a major share of preprimary enrollment in Bangladesh. Hence, the government may consider subsidy programs and matching grant schemes to help non-state actors<sup>1</sup> expand the provision of ECE in underserved areas.
- **Implement mass communication programs aimed at raising parental and community awareness of the importance of ECE to ensure that children of appropriate age enroll in ECE programs.** These campaigns would help raise awareness among parents on the importance of social interactions and play in developing children’s cognitive and socioemotional skills and on the value added to their children’s holistic development by giving them early exposure to quality ECE programs.

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<sup>1</sup> Non-state actors account for nearly half of all ECE provision, with some NGOs and community-based learning centers already operating in hard-to-reach communities (APSC 2017).

## Quality of ECE

### Key Findings

- **Bangladesh has developed a national curriculum for PPE and is working to further improve its quality through an upgradation that follows child development standards.** The one-year PPE program currently being implemented in government schools mainly takes an academic approach, while international evidence suggests that a play-based approach leads to better child development outcomes. This is likely the result of a cultural mindset among most parents and teachers that schooling in general, including preschool, should focus on developing a child's academic skills. Furthermore, adequate availability of quality supplementary teaching-learning materials (TLMs), including play materials, remains a challenge in government primary schools (GPSs), limiting opportunities for joyful learning among preschoolers.
- **Other key input indicators such as student-teacher ratio (STR) and student-classroom ratio (SCR) show that Bangladesh has a long way to go in meeting global standards.** Teaching quality, especially when dealing with younger children, is closely linked with STR and SCR. In PPE programs with large classrooms, opportunities for effective teacher-child relationships are reduced and teacher stress may increase, which in turn can adversely affect teaching quality and child development (Barnett et al. 2004; Morgan 2019).
- **There is a shortage of qualified PPE teachers in GPSs.** Around 22 percent of GPSs with PPE classes are operating without a dedicated and trained preprimary teacher (APSC 2018). As more schools become nationalized and offer preprimary classes, the teacher shortage crisis can be expected to intensify. Moreover, delays in the implementation of teacher training programs have left a sizeable number of teachers (around 5,000) without PPE training. Additionally, the government's plans to expand PPE to two years will require a significant increase in the number of preprimary teachers and training provision.
- **In terms of child development outcomes, which are an indicator of the quality of early childhood development (ECD) programs, only around 65 percent of assessed 3- and 4-year-old children were developmentally on track in 2012–13 according to the MICS 2012–13.<sup>2</sup>** Specifically, only one out of five children aged 3–4 years was developmentally on track on literacy-numeracy skills, which is closely linked with preschool attendance. Children from poor families and those living in rural areas were also less likely to be developmentally on track. Regression analyses show that a child's probability of being developmentally on track significantly increases with household wealth—a child from the

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<sup>2</sup> Developmentally on track follows the Early Childhood Development Index (ECDI) of the MICS 2012–13. It is acknowledged that though the MICS provides data from six years ago, a recent evaluation of child development outcomes for preschool attendance shows similar results. This is discussed in detail in Chapter 3.

richest wealth quintile is 29 percent more likely to be developmentally on track compared to a child from the poorest quintile.

- **Children who were attending early childhood programs were found to be more likely to be developmentally on track in 2012–13.** Participation in ECE has a statistically significant positive effect on child development, whereby a child is 37 percent more likely to be developmentally on track if attending preschool, holding other factors constant. Child development assessment data from an ongoing impact evaluation of a small-scale ECE program in the Meherpur district of Bangladesh also show that children enrolled in PPE have much higher child development outcome scores than those who do not attend any preschool program.
- **While the government has made some progress in PPE monitoring, there is a need to further strengthen quality assurance at all levels.** The Ministry of Primary and Mass Education (MoPME) has established classroom standards for PPE provision and also adopted a child development checklist. However, there is yet to be a review on the use of these standards, and national-level assessments of child development outcomes have never been done. Moreover, private ECD centers remain largely outside the scope of national monitoring and quality assurance efforts.

#### *Policy Options*

- **Ensure adequate provision of teaching, learning, and play materials and effective utilization of these items in the classroom.** This will also require that the budget allocated for teaching, learning, and play materials is appropriately used by the recipient schools. Moreover, the government may also consider support to low-resourced private and religious ECD centers in areas where government ECE provision is limited, either by directly providing them with materials or by providing funds to acquire materials.
- **Expediate and complete the recruitment and training of preprimary teachers in government schools to improve the quality of learning.** Furthermore, in light of plans to expand PPE to two years, MoPME also needs to conduct a teacher needs assessment (including an assessment of new skills and training needs) for the additional year of ECE targeting 4-year-olds. Ensuring the timely delivery of training for these additional teachers will require upgrading the teacher training centers, such as the Primary Teacher Training Institutes (PTIs) and Upazila Resource Centers (URCs), to make them well resourced, with an adequate number of qualified instructors and appropriate facilities.
- **Establish a robust system to monitor and evaluate the performance of the ECE system in compliance with official standards.** This should also include national-level tracking of child development outcomes. A quality assurance mechanism that covers both public and private provision of ECE needs to be developed and implemented.

## *Governance and Management of ECE*

### *Key Findings*

- **The provision of ECD programs involves several government agencies, but there is little coordination between actors engaged in PPE and those working in other ECD areas.**<sup>3</sup> While the Ministry of Women and Children's Affairs (MoWCA) is the lead coordination and supervision body for ECD for children aged 0 to 8 years, MoPME is the apex entity overseeing the provision of PPE. The DPE, under MoPME, is the responsible agency for the implementation of PPE. Several other ministries and government agencies<sup>4</sup> also have responsibilities for ECD. Moreover, non-state actors in Bangladesh have been playing a long-standing role in providing ECD. However, coordination between the PPE actors and the rest of the major ECD actors remains weak.
- **The current human resource management system is not responding adequately to address the chronic shortage of qualified preprimary teachers.** The current long-winded PPE teacher recruitment process for GPSs and limited professional development opportunities for PPE teachers are not conducive to ensuring that talent is attracted and retained. Moreover, resource and capacity constraints at PTIs and URCs further impede effective and timely training of preschool teachers.
- **While the government has developed some M&E tools, including quality standards for PPE provision and child development outcomes, system-level quality assurance remains weak.** The monitoring and compliance mechanisms for ECE centers are weak or inconsistently enforced, making it difficult to determine the level of compliance with standards. Non-state provision, as mentioned earlier, remains largely out of government oversight.
- **The results of a SABER-ECD analysis of the ECE policy environment show mixed progress.** The analysis shows that while the system has done relatively well in establishing an enabling environment for ECE at the policy level, it is at a latent stage in terms of establishing a sound monitoring and quality assurance system. It is viewed as being in an emerging stage in terms of achieving the policy goal of implementing ECE widely.

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<sup>3</sup> According to the World Health Organization, ECD refers to the physical, cognitive, linguistic, and socioemotional development of a child from the prenatal stage up to age 8. ECE, a subset of ECD, is a broad term used to describe any type of educational program that serves children in their preschool years, before they are old enough to start primary school. In the context of Bangladesh, preprimary education is one form of ECE, which according to its National Education Policy 2010 (NEP 2010) is meant to focus on children in the 4–5 year age group.

<sup>4</sup> These include the Ministry of Cultural Affairs, Ministry of Social Welfare, the Ministry of Chittagong Hill Tracts Affairs, the Ministry of Religious Affairs, the Ministry of Food, Ministry of Disaster Management and Relief, the Ministry of Information, the Ministry of Youth and Sports, the Ministry of Labor and Employment, and the Ministry of Home Affairs.

## *Policy Options*

- **Further clarify the respective roles and responsibilities of MoPME and MoWCA with regard to PPE.** The government needs to clarify which of these two ministries should coordinate and lead efforts focused on the delivery of integrated ECE services and allocate the necessary funds to the lead ministry to coordinate cross-ministry collaboration in this area. As an initial step in this direction, it will be useful to conduct a comprehensive mapping of ECD activities across the relevant ministries and share the findings with all stakeholders to identify future joint initiatives.
- **Ensure that the human resource management policy and procedures are adequate to attract, develop, and retain qualified teachers for ECE.** In particular, there is a need to review the preprimary teacher professional development opportunities with a focus on incorporating specialized aspects of ECE and child development. There is also a need to address the lack of qualified and experienced preprimary educators who could serve as teacher trainers and teacher mentors.
- **Introduce and implement a quality assurance mechanism that is implemented widely through a regulatory framework encompassing both public and private PPE provision.** Building on the progress made in developing quality standards for PPE, the government needs to take the next step to ensure that these standards are consistently applied. In addition, data on child development outcomes need to be collected and used as a key part of an M&E system to track system performance and inform future reforms.

## *Financing in ECE*

### *Key Findings*

- **Public spending on ECE in Bangladesh remains low by international standards even though there has been a steady increase in the ECE budget in recent years.** Public spending on ECE in Bangladesh is only 0.02 percent of gross domestic product (GDP), much lower than the figures for most lower-middle-income countries, which typically spend over 0.12 percent of the GDP on ECE. Furthermore, the country lags behind in terms of per child expenditure on ECE—for example, while the average per child ECE expenditures of low-income and lower-middle-income countries were US\$123 and US\$242, respectively, in 2012 (Wils 2015), Bangladesh spent only US\$3.67 per child in 2013–14.<sup>5</sup> The major share of public budget goes to teachers' salaries, leaving limited funds for development investments.
- **The number of children enrolled in ECE programs is expected to increase substantially in the coming years, which will require increased financial resources and service**

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<sup>5</sup>While the Wils paper uses cost-based approach in estimating the average per child ECE expenditures, the figure for Bangladesh uses aggregate PPE budget allocation.



**delivery capacity.** With two years of PPE anticipated, public investments, especially in ECE quality enhancement activities, will need to increase substantially.

- **A large share of ECE services in Bangladesh is privately financed.** Non-state institutions comprise around 41 percent of the institutions providing ECE. While some of these institutions are subsidized by funds from donors and different nonprofit entities, such as religious organizations and nongovernmental organizations (NGOs), others rely on student fees to pay for their services. Families spend a substantial share of their household resources on ECE. According to the HIES 2016 data, around 3.8 percent of households incurred ECE expenditures and these households devoted 3.3 percent of their total consumption to ECE.
- **Poorer households have substantially lower private spending on ECE than richer households.** In 2016, the average annual ECE spending for households in the richest consumption quintile was more than seven times higher than the average ECE spending for households in the poorest quintile. Rural areas lag behind urban areas significantly in terms of total as well as per child household spending on ECE.
- **As public spending has a larger importance for poorer children, increase in public spending can help reduce the ECE spending gap between poor and rich households.** About 49.7 percent of the ECE expenditures of the average household in the poorest quintile came from public resources compared to 12.8 percent for a household from the richest quintile, indicating that benefits from public spending are more important for poorer households. The contribution of public spending in reducing the spending gap between the rich and poor households is quite substantial.

### *Policy Options*

- **Given the vast amount of investment needed for universalizing ECE, explore different options for mobilizing funds to support ECE expansion.** When it comes to public financing, some cost sharing between the central and local governments could be an approach to mobilizing extra resources for ECE. Other innovative approaches used in different countries to raise funds from the private sector to support ECE could also be considered, including sin taxes, social impact bonds, payroll taxes, and resources allocated by private firms to fulfil their corporate social responsibilities.
- **Explore different public-private partnership models of service delivery to expand the reach of ECE programs.** While one of year of PPE is an integral part of public primary schools, the reach of public PPE programs is currently limited by the geographical distribution of primary schools, especially in rural areas. An effective combination of public and private financing can, therefore, help expand access to ECE as well as enhance equity in access. In particular, Bangladesh can benefit by exploring models of public financing and private delivery of ECE services such as block grants, per child payments, subsidies to low-income families paid directly to ECE providers, and school vouchers.

## Chapter 1: Introduction

### 1.1 Background

1. **Bangladesh has made substantial progress in poverty reduction, supported by sustained economic growth and human development gains.** The national poverty rate halved from 48.9 percent in 2000 to 24.5 percent in 2016, lifting 25 million people out of poverty (World Bank 2019). This progress has been underpinned by an impressive average annual gross domestic product (GDP) growth of above 6 percent over the past decade. At the same time, human development outcomes have improved. Bangladesh has experienced the fastest decline in child and infant mortality rates among developing countries, attained near universal access to primary education, achieved gender parity in access at the primary and secondary education levels, and improved access to tertiary education for both males and females. Furthermore, women's participation in the workforce has increased while the gap in wage differentials has declined.

2. **Bangladesh will need to invest more to build its human capital and realize its aspirations to become a developed economy by 2041.** According to the Human Capital Index 2018, a child born in Bangladesh today would be only “48 percent as productive when she grows up as she could be if she enjoyed complete education and full health” (World Bank 2017, 1). Several challenges remain in human development, including high rates of child malnutrition and stunting, inadequate quality of school education, and inequitable access to quality social services among disadvantaged socioeconomic groups, which prevent children from achieving their full potential. Bangladesh will have to urgently address these gaps in human development to take advantage of the opportunities provided by the rapidly changing global economy.

3. **Investment in the early years remains one of the most important factors in building a strong human capital base and achieving greater economic prosperity.** Global evidence shows that investment in the early years is one of the most cost-effective means of improving economic and social indicators (World Bank 2019). Multi-sectoral investments in health and nutrition, child protection, and early years education play an important role in ensuring that children are on the right track from birth onwards in terms of cognitive, language, socioemotional, and physical development.

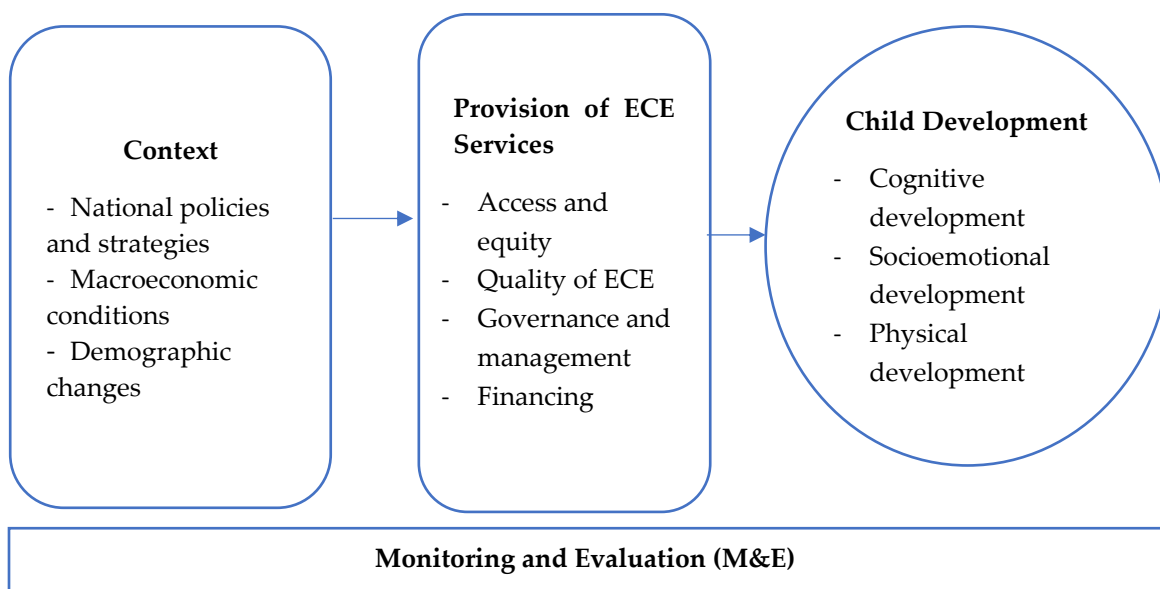
4. **The government of Bangladesh (GoB) recognizes the importance of early childhood education (ECE) in improving the quality of human capital.** While ECD initiatives have focused largely on health and nutrition, the GoB is now increasingly putting stronger emphasis on ECE. The NEP 2010 stresses the importance of preprimary education (PPE) for cognitive and physical development of children and aspires to gradually extend PPE to two years from the current one-year program. The Ministry of Primary and Mass Education (MoPME) introduced universal one-year of preprimary schooling in 2014 and established an operational framework for PPE aimed at providing all children aged 4–5 years with access to some form of education, as well as health, nutrition, social, physical, and intellectual development programs. In addition, the Ministry of Women and Children's Affairs (MoWCA) has adopted the Comprehensive Early Childhood Care and Development Policy 2013 (CECCDP 2013) to guide the delivery of ECD services.

5. **MoPME is the lead ministry for all aspects of ECE, while MoWCA works on the broader national ECD agenda.** MoPME leads policy formulation and guides operations in preprimary, primary, and nonformal education. It manages the PPE subsector through a directorate—the Directorate of Primary Education (DPE)—which is responsible for the administration and quality assurance of one year of PPE in all government and government-supported schools. The PPE curriculum and textbooks are developed by the National Curriculum and Textbook Board (NCTB) and distributed by the DPE to schools. MoPME informs MoWCA of the work it is undertaking in ECE, aligned with the CECCDP 2013. While the government is the largest provider of ECE, non-state institutions collectively account for almost half of all ECE provision in Bangladesh. These include private preschools and kindergartens, private religious schools, nongovernmental organization (NGO) preschools, and community-based schools.<sup>6</sup>

## 1.2 Study Objectives and Approach

6. **Despite the importance of ECE in Bangladesh, available data and information about the sector are scarce and scattered, and little attempt has been made to comprehensively review the sector.** Against this backdrop, this study aims to provide a comprehensive review of the ECE subsector in Bangladesh and present some key policy recommendations for addressing the identified challenges and opportunities. It is expected that the findings of this study will inform future policy discussions on making quality ECE available to all children in the country.

Figure 1: Framework for ECE



7. Figure 1 presents an analytical framework for analyzing the state of ECE in Bangladesh. The ultimate focus of ECE interventions is improved child development outcomes, which include cognitive, socioemotional, and physical development of the child. A key to improving child development outcomes at the national level is the provision of quality ECE services for all, which

<sup>6</sup> Details of the ECE system are discussed extensively in Chapter 4.

requires that ECE is widely and equitably accessible, ECE programs are of high quality, there is a strong system for the management and governance of ECE centers, and adequate financing is provided to the sector. The provision of ECE services itself is influenced by the larger local and national contexts, which include national policies and strategies, macroeconomic conditions, and demographic changes. Access to ECE is a result of both the supply of ECE services (for example, number and distribution of schools offering ECE) and the demand for ECE (which is, for example, influenced by the socioeconomic backgrounds of households). The quality of ECE services is reflected both in the quality of inputs or structural elements such as curriculum, teaching-learning materials (TLMs), availability of qualified teachers/educators, and child-teacher ratio as well as in the quality of the pedagogical process and the school-level monitoring and management system. Financing refers to private as well as public financing of ECE, while governance and management considers the policies, institutional organization, and rules and regulations that guide the sector. A strong ECE system also includes an efficient mechanism for systematic M&E of ECE activities and outcomes at different levels.

8. Using this conceptual framework, the report will review the capacity of the ECE system focusing on the following key aspects: (a) access and equity, (b) quality of ECE, (c) governance and management, and (d) financing. Finally, the report will lay out policy recommendations for achieving access to quality ECE for all children.

### 1.3 Study Methodology and Report Structure

9. **The study is based primarily on a desk review of existing documents and literature on ECE and quantitative analyses of existing survey data.** The desk review focuses on policies, plans, and strategies; existing studies; and pertinent records related to ECE in Bangladesh. The quantitative analyses are based on data from two rounds of the Household Income and Expenditure Survey (HIES 2010, 2016–2017); the Multiple Indicator Cluster Survey (MICS 2013);<sup>7</sup> survey data from an ongoing impact evaluation of a small-scale ECE intervention in one district of the country; and the latest administrative data from the DPE. In addition, the study uses some primary data collected using the World Bank’s Systems Approach for Better Education Results (SABER) tool to analyze the governance and management status of ECE in Bangladesh.

10. **The rest of the report is organized as follows.** Chapter 2 uses data from the MICS and HIES to investigate access and equity issues in ECE provision and identify determinants of ECE participation. Chapter 3 presents findings on the quality of ECE provision, along with a discussion on the child development outcomes of Bangladeshi children. This chapter uses information from the annual school census for analyzing the quality of inputs to ECE and MICS and Early Years Preschool Program (EYPP) survey data for analyzing child development outcomes. Chapter 4 discusses the governance and management of ECE, including the mechanisms for quality assurance and M&E. It also analyzes Bangladesh’s policy environment using the SABER framework. Chapter 5 discusses the trends in public financing of ECE, private

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<sup>7</sup> At the time of this study, MICS 2019 was in progress. MICS 2012–13 was the latest available dataset to analyze the status of ECE among 4-year-olds in Bangladesh.

spending on ECE, and examples of innovative financing options used in a number of other countries. Each chapter also includes policy options for moving forward.

## Chapter 2: Access and Equity in Early Childhood Education in Bangladesh

### 2.1 Status of ECE Provision in Bangladesh

#### 2.1.1 Who Provides ECE in Bangladesh?

11. **ECE in Bangladesh is provided by a combination of public and non-state institutions.** Children in the 3-5 age group are the target beneficiaries for ECE in Bangladesh. As shown in Table 1, these children attend a variety of public and non-state intuitions, though government primary schools (GPSs)—which offer one year of free PPE in preparation for primary schooling—are the main providers of ECE in the country. In 2018, GPSs constituted around 60 percent of the institutions providing ECE and accounted for around 47 percent of the approximately 3.6 million children enrolled in preprimary classes across the country. The rest were enrolled in other types of institutions, including registered nongovernment primary schools (RNGPSs), experimental schools, religious schools, NGO-managed schools, and for-profit private schools.

**Table 1: Number of preprimary institutions and student enrollments, 2014 and 2018**

Institution type	No. of institutions		No. of children enrolled	
	2014	2018	2014	2018
GPS	60,712 (72%)	63,480 (59%)	1,950,366 (63%)	1,690,773 (47.2%)
RNGPS	1,255 (1.5%)	3,365 (3.15%)	38,510 (1.25%)	93,690 (2.62%)
Experimental	11 (0.01%)	61 (0.06%)	266 (0.01%)	1,835 (0.05%)
Religious	1,115 (1.32%)	1,129 (1.06%)	34,105 (1.1%)	66,278 (1.85%)
Community	83 (0.1%)	117 (0.1%)	2,211 (0.07%)	2,929 (0.08%)
Others	21,534 (25%)	38,700 (36%)	1,063,002 (34.4%)	1,722,879 (48.1%)
Total	84,710 (100%)	106,852 (100%)	3,088,460 (100%)	3,578,384 (100%)

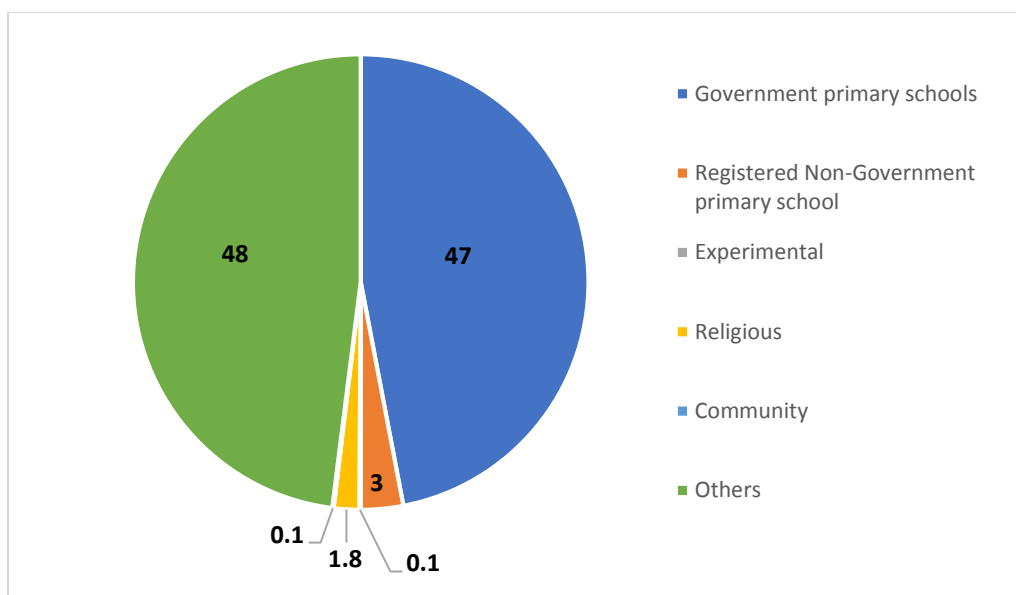
Source: APSC 2010, 2018.

Note: Other categories include NGO schools (such as Building Resources Across Communities [BRAC] schools) and different types of learning centers such as private kindergarten schools, jail schools, tea garden schools, schools for the hearing impaired and visually challenged, private religious schools, and learning centers for out-of-school children.

12. **The total number of institutions offering PPE has increased rapidly in recent years.** The number of institutions offering PPE increased by 26 percent between 2014 and 2018, from 86,710 to 106,852 (Table 1). This increase was driven mainly by an expansion in the number of non-state institutions, which outpaced the growth of public provision. During this period, the number of preprimary students actually declined by 13 percent in GPSs and increased by 62 percent in non-state institutions. As the average size of government preprimary schools is smaller than that of

other types of providers, including NGOs and private providers, more children have been accessing PPE through expanded non-state services in recent years even though a major share of preprimary institutions are government funded and managed. In addition to the public supply constraint, evidence from key informant interviews suggests that an important contributing factor behind the decline in enrollments in GPSs could be parental preference for non-state PPE due to their perception that non-state institutions provide better quality services. For example, CAMPE (2013) found that NGO schools are likely to have dedicated classrooms, well-trained teachers, specialized curriculum, and better teaching-learning facilities with higher parental involvement compared to other types of schools. Such an environment would likely create a positive perception of the quality of PPE among parents and influence their choice when enrolling children. Another reason cited for parents' preference for non-state PPE providers is proximity to the school or center (CAMPE 2013). Private kindergartens and religious and NGO schools are often located in areas where public provision is low and would be preferred by parents when enrolling preschoolers due to the proximity of these centers to their homes.<sup>8</sup>

**Figure 2: Proportion of preprimary enrollments by type of provider, 2017 (in percentage)**



Source: APSC 2018.

13. **Public provision accounts for around half of the total preprimary enrollment in Bangladesh.** Before the government introduced one year of PPE under the Third Primary Education Development Program (PEDP3) in 2014, NGOs and for-profit private institutions were the main providers of ECE. Some government schools offered 'baby classes', which were noninstitutionalized setups taken up as local initiatives by school teachers to meet the demands of primary students with younger siblings (CAMPE 2013). By 2018, however, PPE was available in around 63,480 GPSs across the country. The RNGPSs, which are government-supported private schools in the process of nationalization, accounted for another 3 percent (93,690 students)

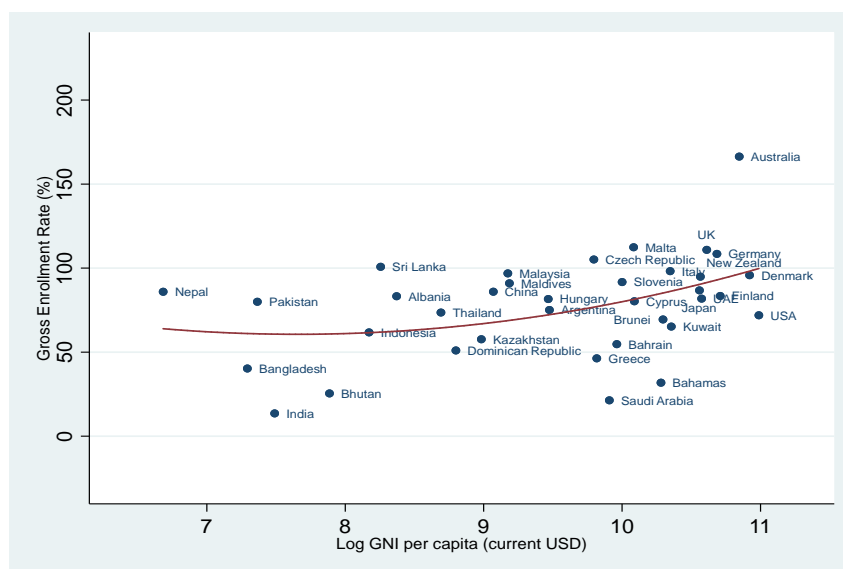
<sup>8</sup> Although all indications point to there being supply-side factors that impede children's access to ECE in Bangladesh, we do not have access to data that allow us to explore this issue in further detail, such as spatial factors.

of preprimary students in 2018 (Figure 2). However, the RNGPS students are expected to be absorbed into the government school system once these schools are nationalized, making the government the single largest provider of ECE. Other providers, including NGOs and for-profit private providers, accounted for a large share of the total ECE enrollment (48 percent), mainly due to their larger intake capacity and strategic locations in areas where public provision is limited. Religious schools and experimental schools enrolled the remaining 2 percent of preprimary students.

### 2.1.2 To What Extent Are Children Participating in ECE?

14. **In terms of preprimary gross enrollment rate (GER), Bangladesh is a below-average performer among the countries in South Asia and a low performer compared to upper-middle-income and high-income countries.** Figure 3 plots the preprimary GERs against per capita incomes for a number of countries across the world in 2017. As the figure indicates, Bangladesh, with a GER of 40.3 percent, performs better than India and Bhutan but lags behind other countries in the region including Sri Lanka, Nepal, and Pakistan, which have similar or lower per capita incomes. Most upper-middle-income and high-income countries have much higher PPE GERs than Bangladesh.

**Figure 3: Preprimary GER for children ages 3–5 in relation to GNI per capita (2017)**



Source: Authors' estimates using UNESCO Institute for Statistics (UIS) Database for GER; World Development Indicators for gross national income (GNI) per capita.

15. **However, access to PPE has increased substantially over the past several years, mainly due to the introduction of one year of PPE in GPSs.** The PPE GER increased from 24.4 percent to 40.9 percent between 2011 and 2017 (Table 2). Between 2014 and 2018, the total enrollment in preprimary classes increased by around 16 percent from 3.09 million to 3.57 million students,



though the figure decreased slightly between 2017 and 2018 (Figure 4). In 2013, a year before the introduction of one year of PPE in GPSs, total PPE enrollment was around 2.96 million.<sup>9</sup>

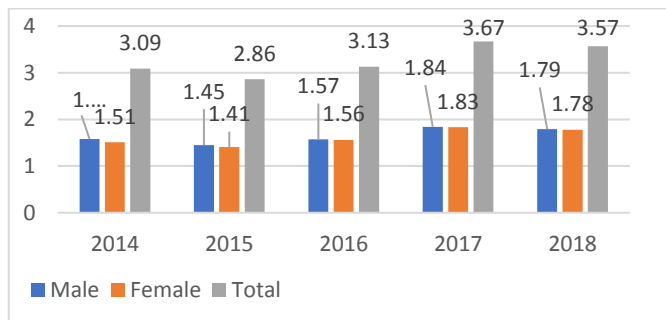
**Table 2: GER for PPE in Bangladesh (%)**

	Total	Male	Female
2011	24.69	25.01	24.4
2012	.	.	.
2013	31.71	31.7	31.7
2014	.	.	.
2015	31.23	30.97	31.5
2016	34.27	33.66	34.9
2017	40.27	39.58	40.9

Source: UIS Database.

Note: GER for children aged 3–5 years.

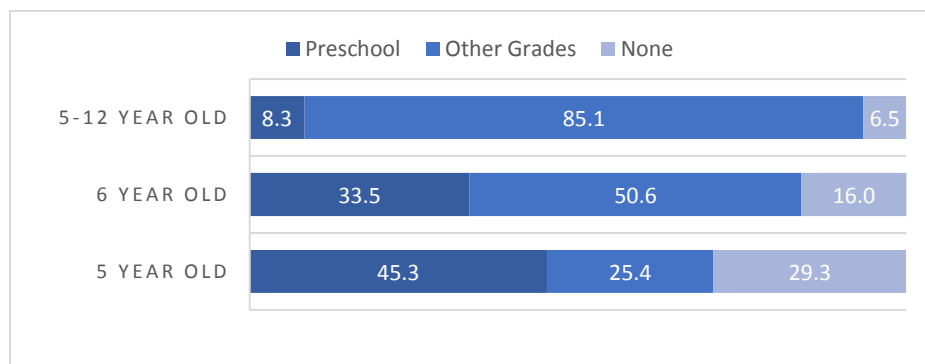
**Figure 4: Preprimary enrollments in all school types in Bangladesh (in millions)**



Source: APSC various years.

16. According to MICS 2012–13, among 5-year-old children, 45.3 percent were attending preschool, 25.4 percent were attending other grades, and the remaining 29.3 percent were not enrolled in any school (Figure 5). The large percentage of 5-year-old children not enrolled in any school and the presence of a significant number of underage children in primary grades indicate that there is significant scope for increasing access to preschool education for 5-year-olds. Though the recommended age for preschool is 3–5 years, the MICS data show that over 50 percent of 6-year-old children were attending preschool, highlighting the large number of overage children in preschool.

**Figure 5: Share of children aged 5, 6, and 5–12 years either attending preschool, other grades, or not currently enrolled in school, 2012–13**



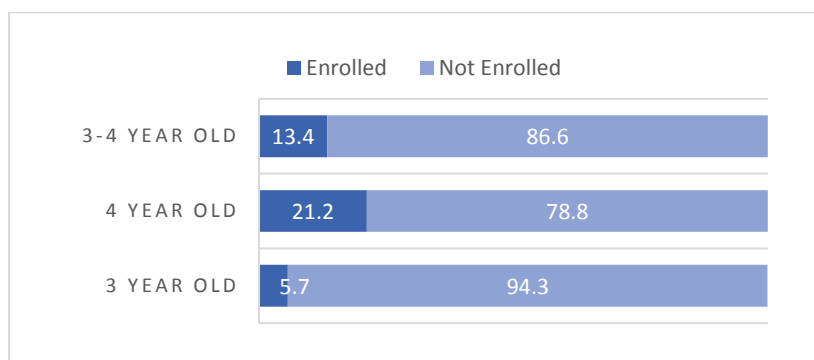
Source: Authors' estimates using MICS 2012–13.

17. The MICS data also show that only 13.5 percent of children aged 3–4 years were enrolled in ECE. Further breakdown across age cohorts reveals that around 5.7 percent of 3-year-olds and 21.2 percent of 4-year-olds were attending preschool (Figure 6). The reasons for low

<sup>9</sup> This figure is based on the UIS database. Preprimary enrollment was not tracked in the Annual Primary School Census (APSC) before 2014.

enrollments in preschool among 3- and 4-year-olds are likely to be varied. The literature suggests that factors such as cultural norms and lack of parental understanding; financial problems; social access issues, such as ethnic minority status or special needs; and geographical access problems are likely to contribute to lower participation among younger children (CAMPE 2013; World Bank 2014). It is also possible that the non-enrolled children include those who were attending other grades or were not enrolled in school anywhere.<sup>10</sup>

**Figure 6: Proportion of children aged 3–4 years attending ECE program, 2012–13**

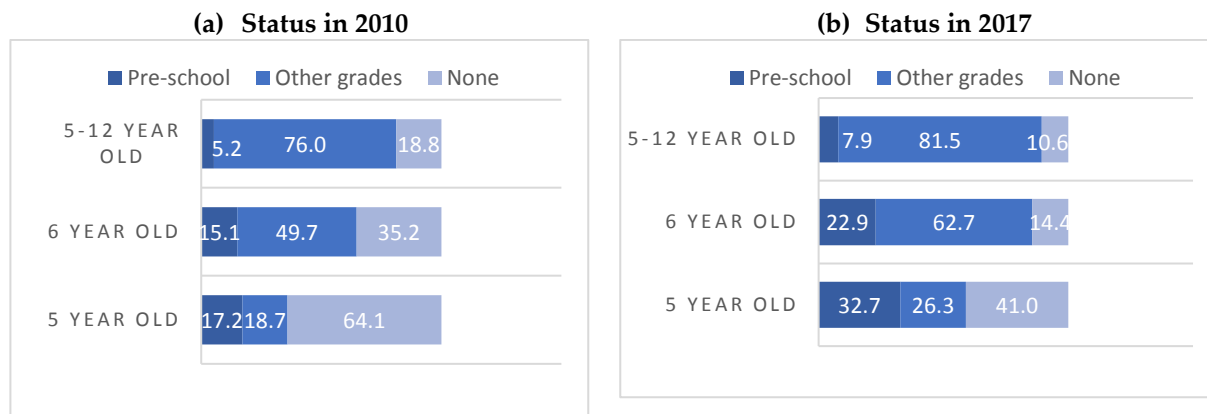


*Source:* Authors' estimates using MICS 2012–13.

18. **More recent data from the HIESs indicate that late entry into preschool still persists but has been declining.** According to the HIES 2010 and HIES 2016–17 data, around 8 percent of children aged 5–12 years were enrolled in preschool in 2016–17, a slight increase compared to 2010 (Figure 7). Among children age 5, the share enrolled in preschool nearly doubled between 2010 and 2016–17, from 17 percent to around 33 percent, indicating significant improvements in age-appropriate enrollment of children in preschool. The share of 6-year-olds who attended preschool also increased but at a lower rate compared to 5-year-olds during the same period. The shares of 5- and 6-year-olds enrolled in other grades also increased, with around 63 percent of 6-year-olds enrolled in other grades in 2016–17. At the same time, the shares of children not enrolled in school declined by more than 20 percentage points for both 5- and 6-year-olds, showing improvements in bringing more children into school, especially at the right age.

<sup>10</sup> The MICS module on children under 5 years does not provide data that would allow for further investigations into the distribution of 'not enrolled children' among 3- and 4-year-old children.<sup>11</sup> Around 8 percent of children age 8 and 4 percent of children between ages 9 and 12 were attending preschool in 2012–13. Interviews suggest that older age children often cannot enroll in formal schooling and opt for non-formal PPE provided by NGOs and community-based centers.

**Figure 7: Share of children aged 5, 6, and 5–12 years old who either attend preschool, other grades, or not currently enrolled in school**

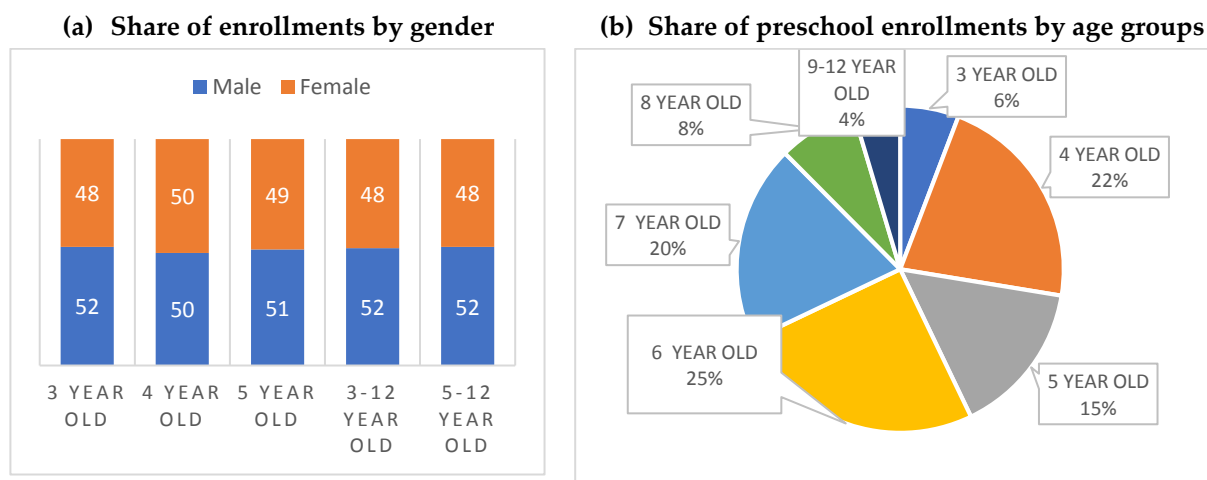


Source: Authors' estimates using HIES 2010.

Source: Authors' estimates using HIES 2017.

### 2.1.3 Who Are the Children Enrolled in Preschool in Bangladesh?

**Figure 8: Distribution of preschool enrollments by gender (left) and age (right), 2012–13**



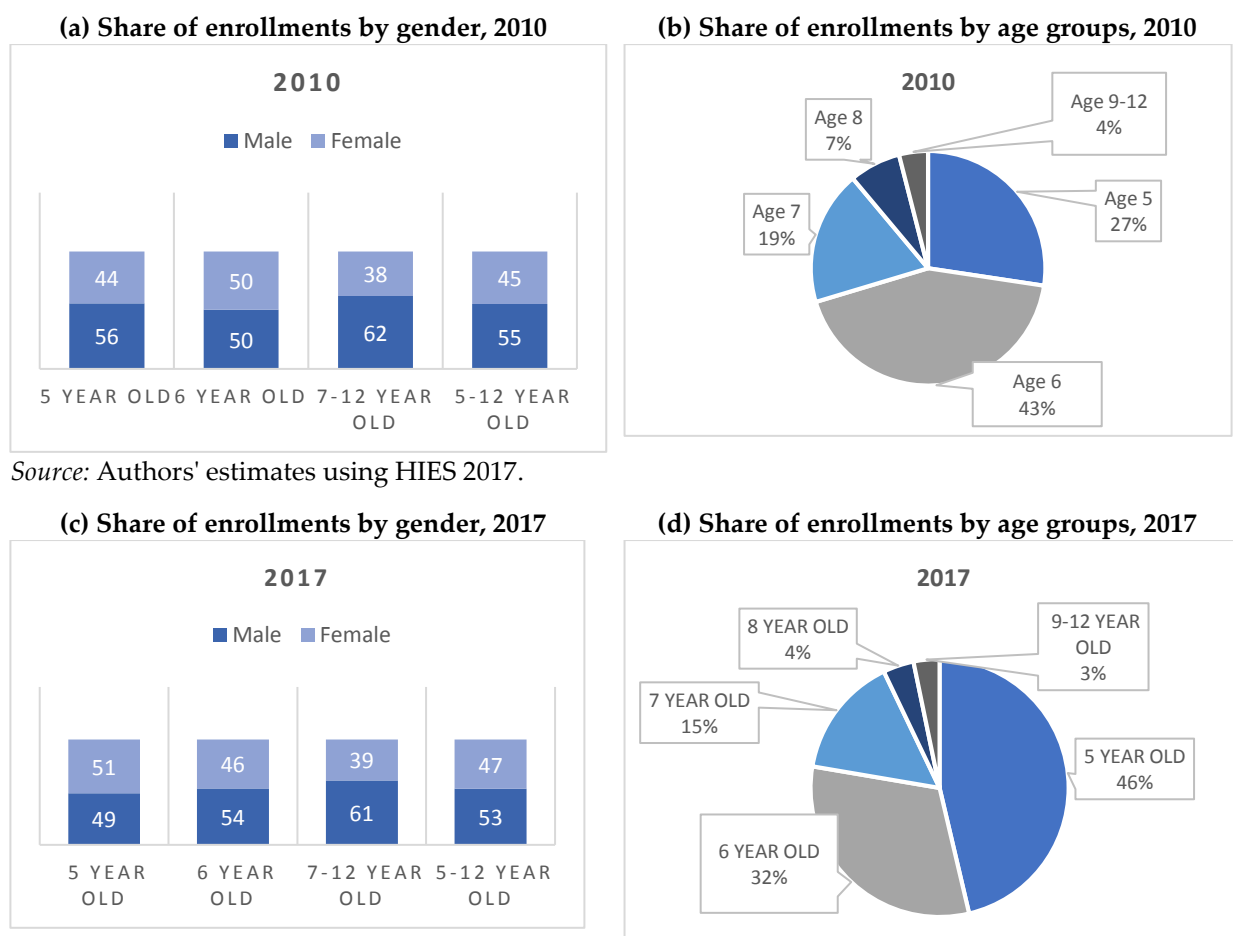
Source: Authors' estimates using MICS 2012–13.

19. According to the MICS data, a sizeable portion of the children enrolled in preschool were overage, and males comprised a slightly higher share of preschool students than females in 2012–13. As shown in Figure 8, preschool students in 2012–13 included children from a wide range of age groups. Among the children enrolled in preschool that year, only 43 percent belonged to the appropriate preschool age group (3–5 years) and the remaining 57 percent were overage, reflecting a late school entry trend in Bangladesh. It is interesting to note that while 6- and 7-year-olds comprised the bulk of the overaged preschoolers, there was also a large percentage of older preschool children (12 percent) belonging to the 8–12 age group.<sup>11</sup> One

<sup>11</sup> Around 8 percent of children age 8 and 4 percent of children between ages 9 and 12 were attending preschool in 2012–13. Interviews suggest that older age children often cannot enroll in formal schooling and opt for non-formal PPE provided by NGOs and community-based centers.

potential reason for the large number of overage preschoolers in Bangladesh is parental perception of the appropriate age for enrollment in preschool. According to CAMPE (2013), many parents surveyed felt that 5-year-old children are not adequately mentally and physically developed to be attending school. Another reason for late entry is that many working parents, especially those from low-income households living in informal urban settlements, are often unable to drop off and pick up young children to and from school (World Bank, 2018). Such families tend to wait till their children are old enough to commute to a nearby school independently. There was near gender balance among 4- and 5-year-old children attending preschool in 2013. However, males comprised a higher share of students in the 3–12 age group.

**Figure 9: Distribution of preschool enrollments by gender (left) and age (right), 2010 and 2017**



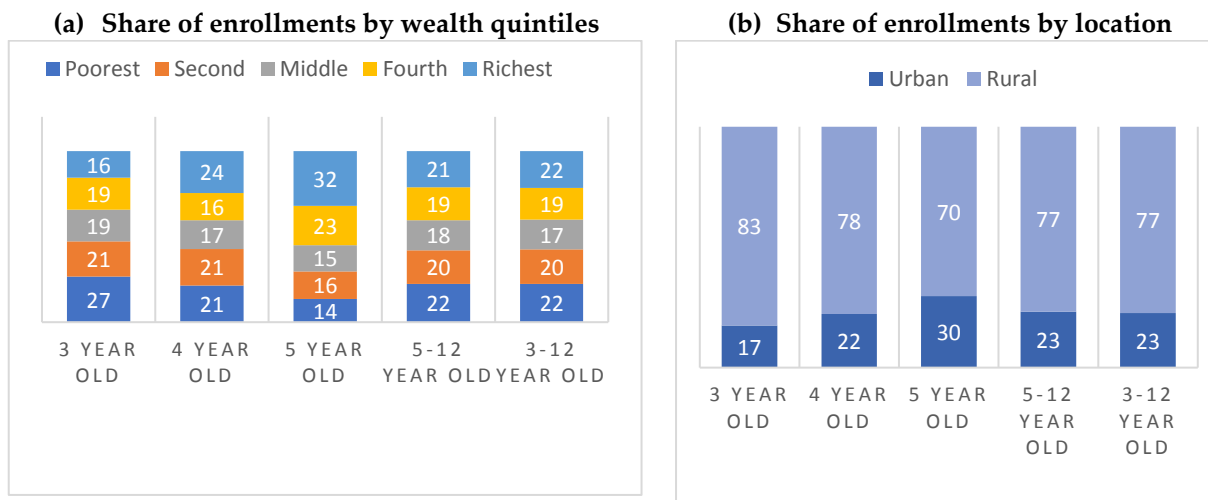
Source: Authors' estimates using HIES 2017.

Source: Authors' estimates using HIES 2010 and 2017.

20. **A similar distribution of preschool children is observed in the HIES data from 2010 and 2017, along with a decline in the enrollment of overage children between these two years.** These data show that preschool children aged 5–12 years continue to be predominantly male (Figure 9). Though the gender balance shifted in favor of females among 5-year-olds between 2010 and 2017, the share of males remained higher for all other age groups. As for the distribution of preschool children across age cohorts, the share of 5-year-olds increased substantially between 2010 and 2017, from 27 percent to 46 percent, while the shares of 7- and 8-year-olds declined,

indicating an improvement in age-appropriate enrollment in preprimary classes. Nonetheless, around 54 percent of the children enrolled in preschool in 2017 were 6 years or older, reconfirming that the issue of late entry into school continues to persist.

**Figure 10: Distribution of preschool enrollments by wealth (left) and location (right), 2012–13**



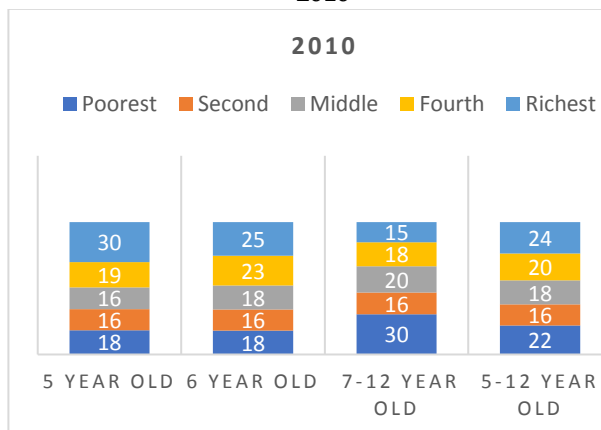
Source: Authors' estimates using MICS 2012–13.

21. **The MICS 2012–13 data show a disproportionately large share of 5-year-old preschool children from wealthier families.** Among 5-year-olds, around 55 percent of the children attending preschool belonged to the richest two wealth quintiles (Figure 10a).<sup>12</sup> Furthermore, while 32 percent of preschool children in this age group belonged to the richest wealth quintile, only 14 percent came from the poorest quintile. Given that the largest share of preschool children belonged to the 5-year-old age group (Figure 9d), these findings indicate that age-appropriate enrollment was significantly more prevalent among the richer households.

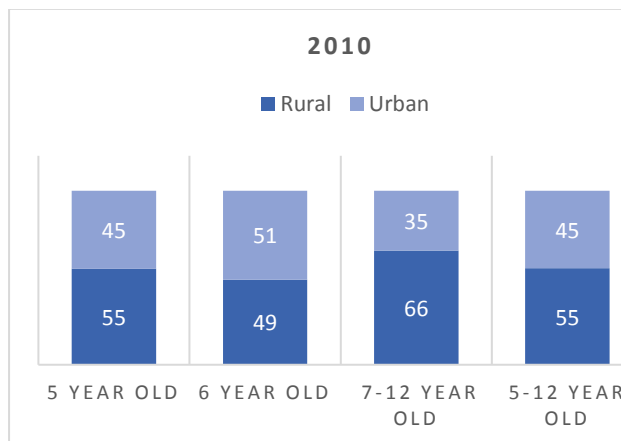
<sup>12</sup> The income quintiles used in the MICS are based on household wealth, which includes household assets.

**Figure 11: Distribution of preschool enrollments across income quintiles (left) and location (right); 2010 and 2016–17**

**(a) Share of enrollments by income quintiles, 2010**

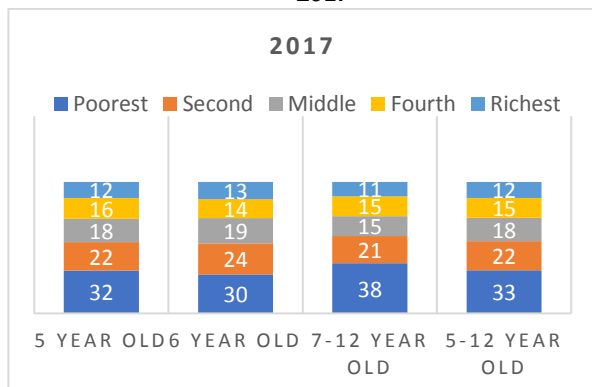


**(b) Share of enrollments by location, 2010**

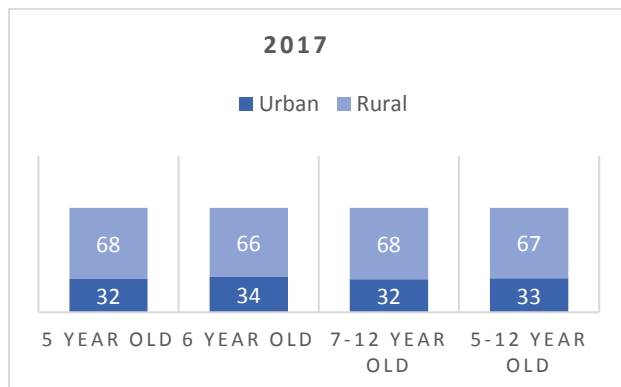


Source: Authors' estimates using HIES 2010.

**(c) Share of enrollments by income quintiles, 2017**



**(d) Share of enrollments by location, 2017**



Source: Authors' estimates using HIES 2017.

22. **However, the provision of preschool has become more pro-poor in recent years.** According to the HIES data, while around 22 percent of all children ages 5–12 enrolled in PPE came from the poorest quintile in 2010, this figure increased to 33 percent in 2017 (Figure 11). Across the age groups, around 54 percent of 5-year-olds and 6-year-olds attending preschool were from the poorest two quintiles in 2017, which represents a substantial improvement in pro-poor access compared to 2010. The improvement in pro-poor provision of ECE is likely due primarily to the introduction of one year of free PPE in GPSs.<sup>13</sup>

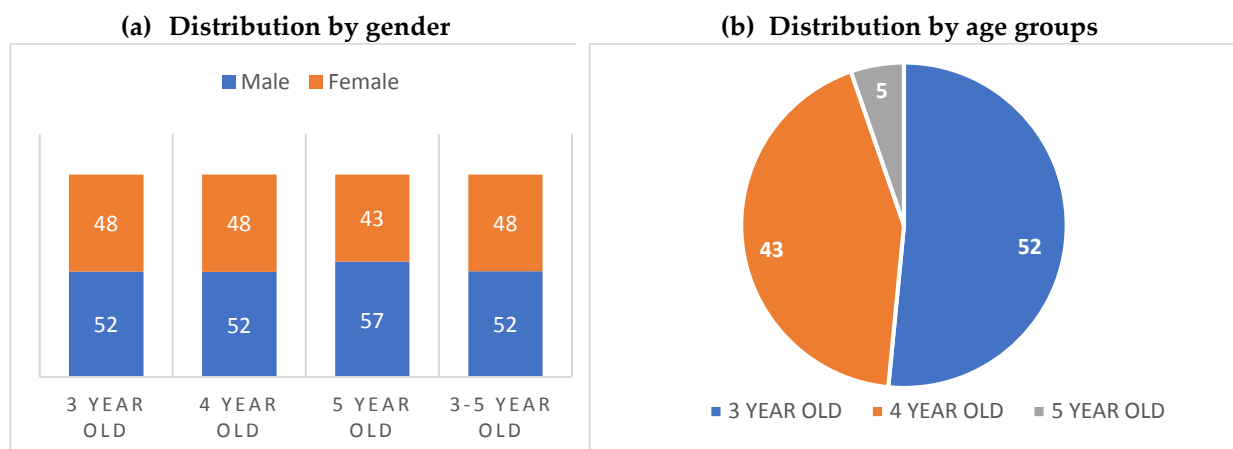
23. **Both the MICS data and the HIES data show that the vast majority of preschool children come from rural areas** (Figures 10b and 11 b and d). Furthermore, according to HIES 2010 and

<sup>13</sup> Expansion of government provision of schooling is suggested to have improved access to education among children from poor households in Bangladesh (World Bank 2019).

HIES 2016–17, the share of PPE children from rural areas has increased over time, bringing it closer to the proportion of the population residing in rural areas of the country.<sup>14</sup>

### 2.1.4 Who Are the Children Not Enrolled in Preschool in Bangladesh?

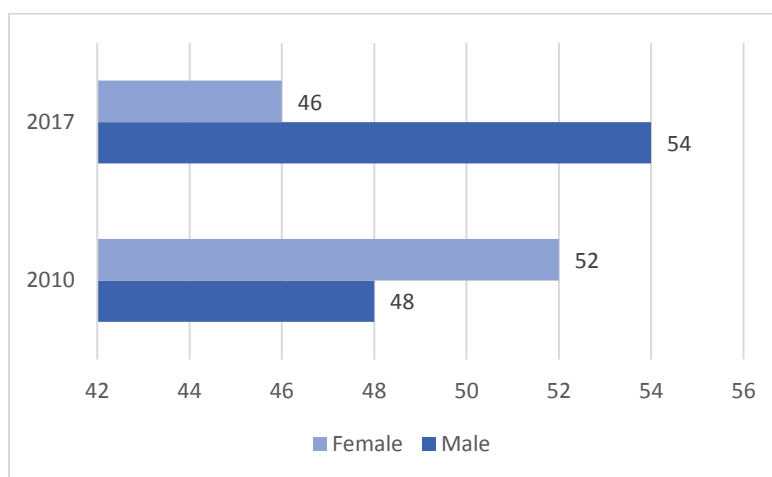
Figure 12: Share of children of aged 3, 4, 5, and 3–5 years not enrolled in preschool, 2012–13



Source: Author's estimates using MICS 2012–13.

24. According to the MICS, young male children were more likely to not be enrolled in preschool in 2012–13. The majority of the children aged 3–5 years not attending preschool or any other grades belonged to the younger age groups. More specifically, 3-year-olds and 4-year-olds comprise approximately 52 percent and 43 percent, respectively, of the 3–5-year-olds not enrolled in any grade (Figure 12). Among the 3–5-year-olds not enrolled, around 52 percent were males and 48 percent were females. The share of males was particularly high (57 percent) among 5-year-old children.

Figure 13: Share of 5-year-old children not enrolled in preschool by gender (%), 2010 and 2017

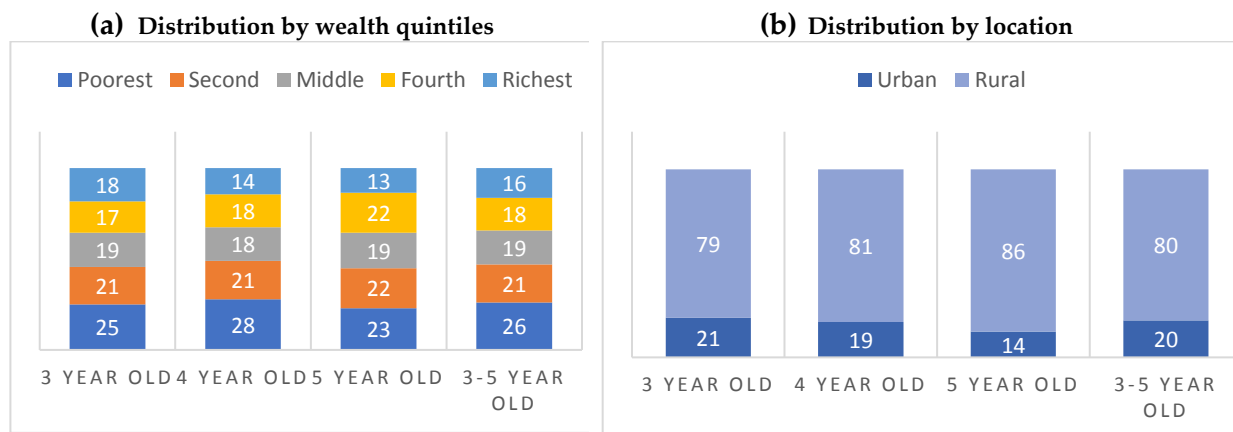


Source: Authors' estimates using HIES 2010 and 2017.

<sup>14</sup> Percentage of rural population in Bangladesh was 64 percent (WDI 2019).

25. The HIES data for 2017 show a similar gender distribution among 5-year-old children not enrolled in preschool or any other grades. In 2017, around 54 percent of these children were male. However, the share of males among these children was only 48 percent in 2010. This relatively large increase in the share of males among the children not enrolled in school suggests that, from the perspective of gender parity, there is a need to put special emphasis on increasing the participation of males in preschool education.

**Figure 14: Share of children aged 3, 4, 5, and 3–5 years not enrolled in preschool (%), 2012–13**

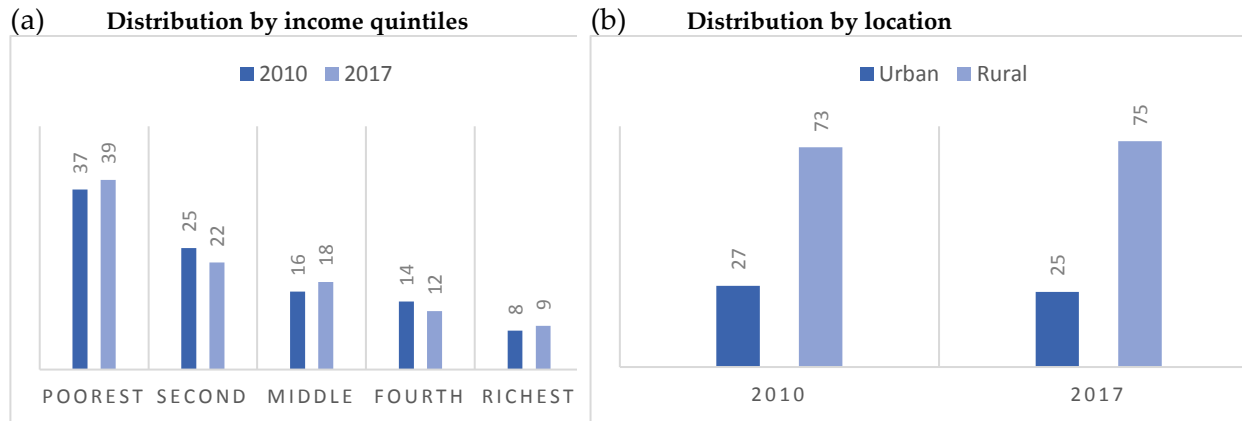


Source: Author's estimates using MICS 2012–13.

26. **Children not attending preschool or other grades are likely to be from the poorest families and living in rural areas.** According to the MICS data, in 2012–13, around 26 percent of children aged 3–5 years who were not attending preschool or other grades were from the poorest quintile while only 16 percent were from the richest quintile (Figure 14). The HIES data also show a similar distribution of non-enrolled 5-year-old children. In 2017, over 39 percent of these children came from the poorest income quintile compared to 9 percent from the richest (Figure 15a). Comparing 2010 and 2017, there has not been much change in the distribution of non-enrolled children across income groups. In terms of location, both the MICS and HIES data show that the vast majority of these children continue to reside in rural areas.



**Figure 15: Share of 5-year-old children not enrolled in preschool, 2010 and 2017**

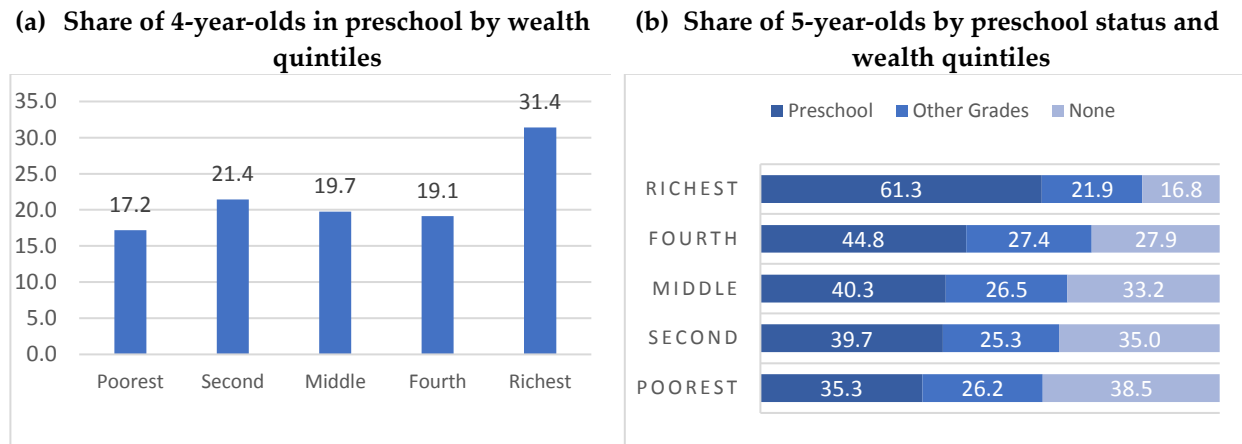


Source: Authors' estimates using HIES 2010 and 2017.

## 2.2 Key Issues in Equitable Access to ECE in Bangladesh

27. The following paragraphs discuss the key issues in equitable access for children aged 4 to 5 years using MICS 2012–13 and the HIES data for 2010 and 2016–17. For children age 4, the child module of MICS is used as this is the only recent source available for this age cohort. The focus of the discussion in these paragraphs is on 4- and 5-year-old children as these are the age groups that are expected to be covered by government ECE programs in the future when one year of PPE is extended to two years.

**Figure 16: Share of children attending preschool, 2012–13 (%)**



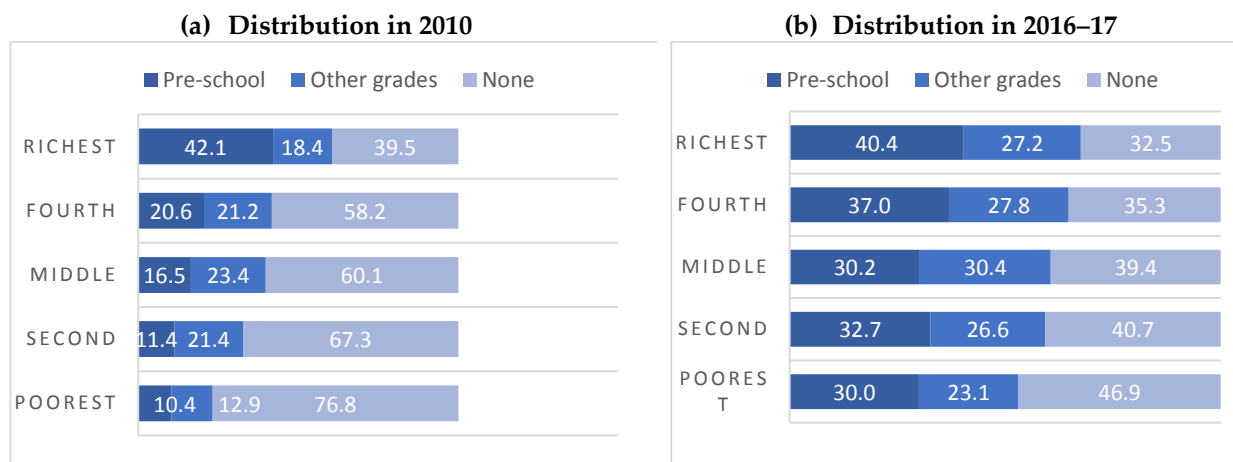
Source: Author's estimates using MICS 2012–13.

28. There are significant disparities in access to ECE by household socioeconomic status. Figure 16 shows that distribution of preschool enrollment among 4- and 5-year-old children by household wealth index quintile<sup>15</sup> in 2012–13. Preschool participation tends to be much higher for children from well-off families. Around 31.4 percent of 4-year-olds and 61.3 percent of 5-year-

<sup>15</sup> The income quintiles used in MICS are based on household wealth which includes assets.

olds from the richest quintile were enrolled in ECE. By contrast, only 17.2 percent of 4-year-old children and 35.3 percent of 5-year-old children from the poorest quintile were enrolled in preschool. Children age 5 from poorer families are also less likely to have never enrolled in school—around 39 percent of children from the poorest quintile were not enrolled in school compared to 17 percent from the richest quintile.

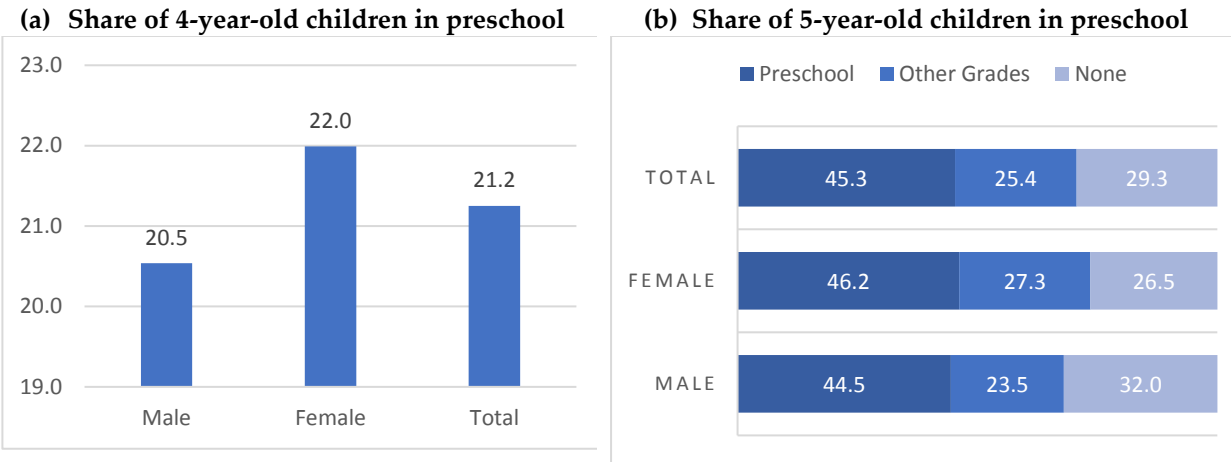
**Figure 17: Share of 5-year-olds attending preschool and other grades by income quintiles, (%)**



Source: Authors' estimates using HIES 2010 and 2017

29. **Disparities in access to preschool and other grades across income groups have declined among 5-year-old children in recent years (Figure 17).** According to the HIES data, around 10 percent of 5-year-old children from the poorest families were enrolled in preschool compared to the 42 percent from the richest families in 2010. By 2016–17, this inequity in access to preschool had declined significantly: the difference between the richest and poorest quintiles in the share of children enrolled in preschool had shrunk from 32 percentage points in 2010 to 10 percentage points in 2016–17. The share of children from the poorest quintile enrolled in other grades also increased during this period, from 13 percent in 2010 to 23 percent in 2017. There was also a significant reduction in out-of-school 5-year-olds, especially among the poorer income groups, indicating overall improved equity in access to schooling.

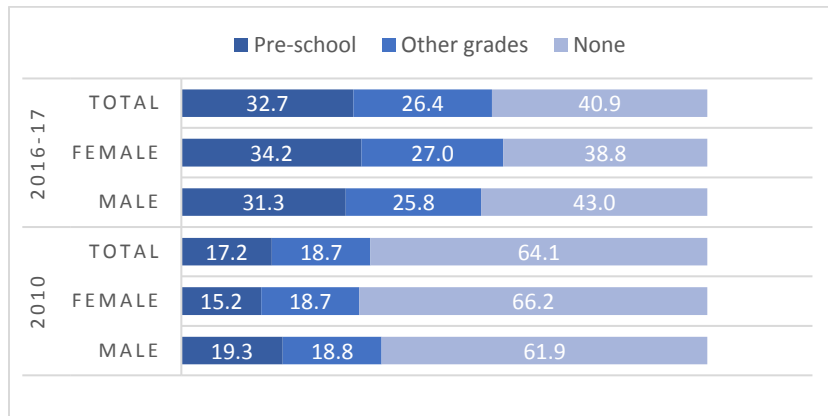
**Figure 18: Share of children attending preschool by gender, 2012–2013 (%)**



Source: Based on author's calculation using MICS 2012–13.

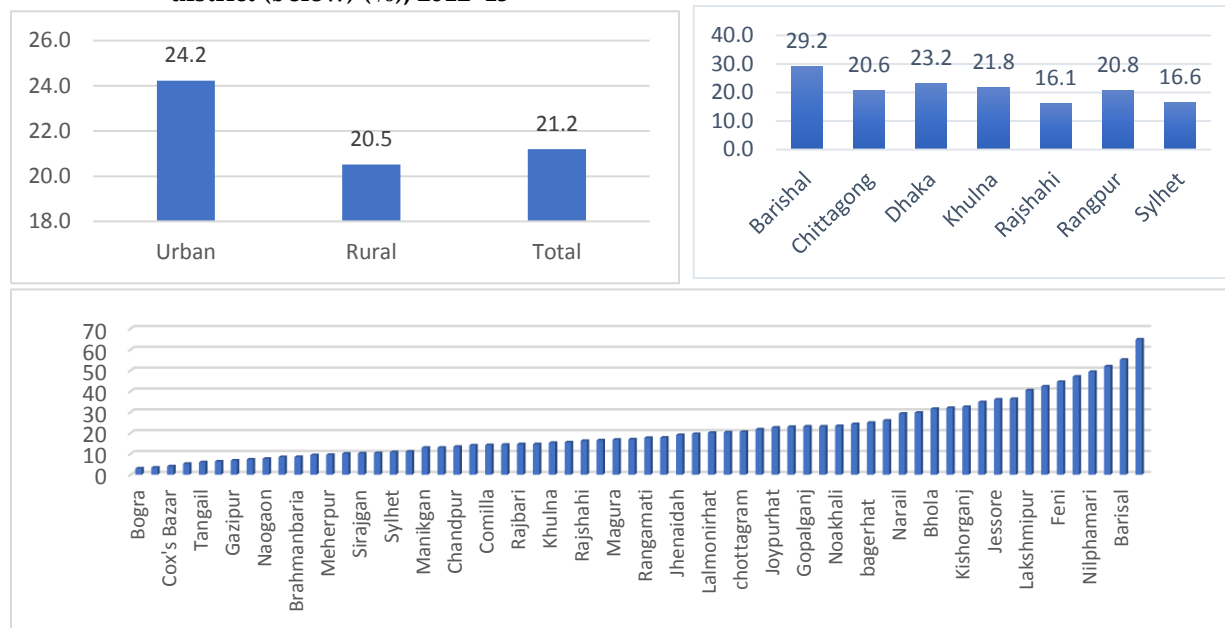
30. **There is no significant gender disparity in access to preschool among 4- and 5-year-old children.** Figure 18 shows the share of 4- and 5-year-old males and females who attended preschool in 2012–13. Among 4-year-olds, a slightly higher share of female children (22 percent) were found to be enrolled in ECE programs compared to males (20.5 percent). The results were similar for 5-year-olds as well. These findings are consistent with the conclusion of the CAMPE (2013) report which shows that there is no significant difference in preschool attendance between males and females. The HIES 2016–17 data also show no significant gender difference in preprimary enrollment among 5-year-olds—around 34 percent of the female children attended preschool while this figure was 31 percent for males (Figure 19). However, the HIES data also show that though the share of male children attending preschool was higher compared to the share of females in 2010, females eventually surpassed their male counterparts by 2016–17 in terms of their uptake of ECE.

**Figure 19: Share of 5-year-old children by status of enrollment and gender (%), 2010 and 2016–17**



Source: Authors' estimates using the HIES 2010 and 2016–17.

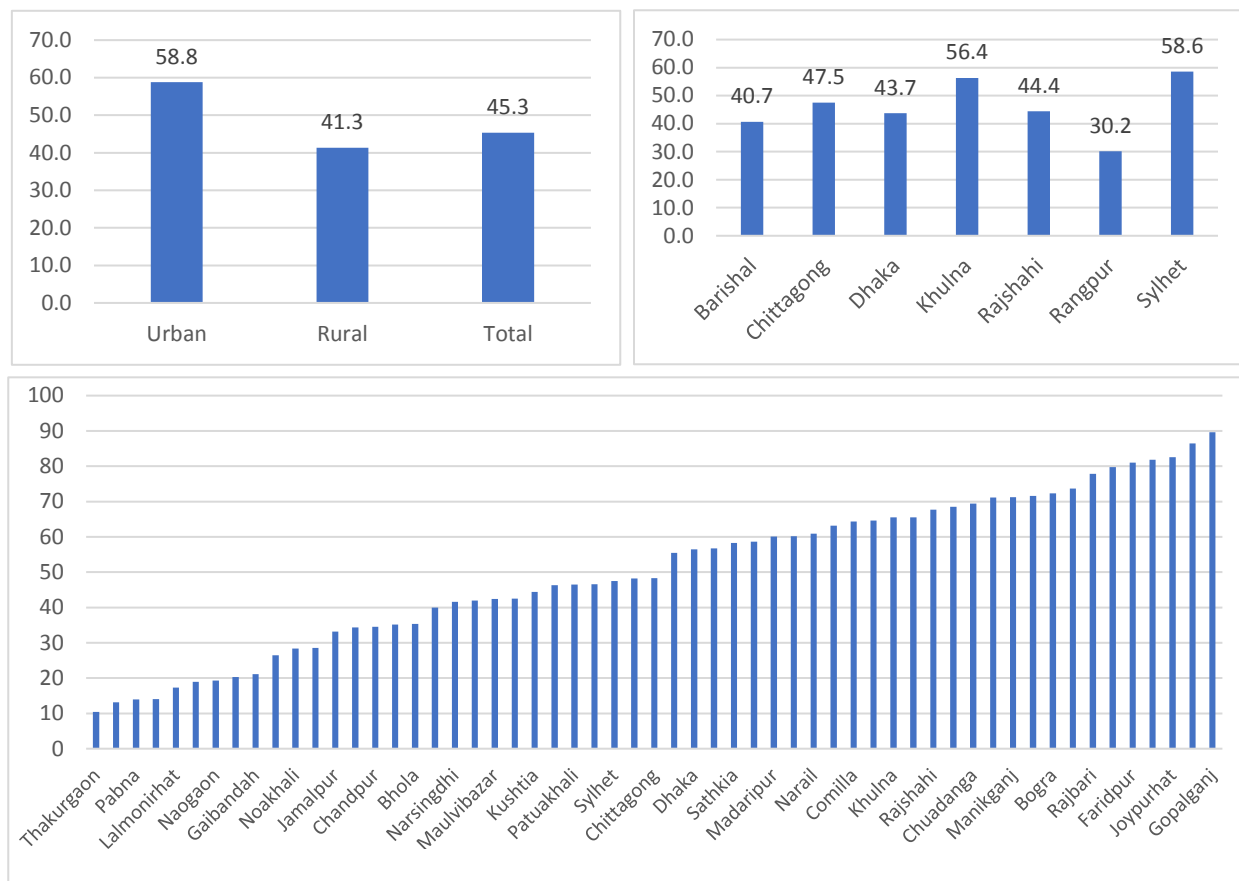
**Figure 20: Share of 4-year-old children attending ECE by area (left), by major division (right), and by district (below) (%), 2012–13**



Source: Author's estimates using MICS 2012–13.

31. **The MICS data show significant disparities in preschool participation across geographical areas, especially for 5-year-old children.** The share of 4-year-old children in urban areas who attended preschool in 2012–13 was around 24 percent, slightly higher than the share in rural areas (Figure 20). Among 5-year-olds, the urban-rural difference is higher, with around 59 percent of these children in urban areas enrolled in preschool compared to 41 percent in rural areas (Figure 21). Across the seven divisions, Barishal and Dhaka have higher ECE participation rates for 4-year-olds compared to Sylhet and Rajshahi, which are the worst performers. By contrast, for 5-year-olds, Sylhet and Khulna have the highest participation rates. Geographical disparities in preschool participation are even more pronounced when comparing across districts: for example, the share of 5-year-old children attending PPE ranges from a low of 10 percent in Thakurgaon to a high of 90 percent in Gopalganj.

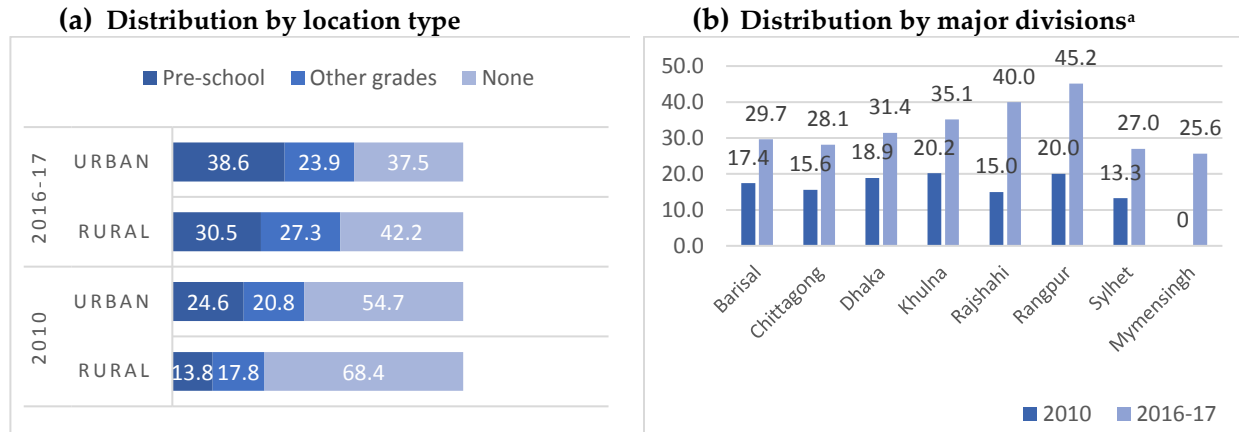
**Figure 21: Share of 5-year-old children attending preschool by area (left), by major division (right), and by district (below) (%), 2012–13**



Source: Author's estimates using MICS 2012–13.

32. **Participation in preschool improved among 5-year-old children from rural areas and across the major divisions between 2010 and 2016–17.** As Figure 22 shows, the share of children from rural families attending preschool increased from around 14 percent in 2010 to around 31 percent in 2016–17. Similarly, the share of children from urban areas attending preschool increased from around 25 percent to 39 percent during this period. Participation in preschool increased across all divisions, with Rangpur, Rajshahi, and Khulna achieving attendance rates exceeding 35 percent. Despite this progress, there still remains significant scope to improve access to preschool in each division as indicated by the large percentages of children who were not enrolled in any grade in 2017.

Figure 22: Share of 5-year-old children attending preschool, 2010 and 2016–17, (%)



Source: Authors' estimates using HIES 2010 and 2016.

Note: a. Mymensingh was declared as a major division post 2010.

### 2.3 Determinants of ECE Attendance

33. **There are a number of factors that could potentially influence ECE participation.** The relationship between these factors and ECE attendance for 5-year-olds is explored using the following simple probit regression model:

$$Y_i = \alpha + \beta X_i + \varepsilon_i \quad \varepsilon_i \sim N(0, \sigma^2), \quad (1)$$

where  $Y_i$  is the outcome (whether the child attended ECE or not) for child  $i$ ,  $X_i$  represents a set of child and family characteristics, and  $\varepsilon_i$  is a random error term. Though the above model implies a causal relationship between  $Y_i$  and the right-hand side variables, it is not possible to establish causality using the available observational data. Therefore, this discussion refers only to relationships and correlations between ECE attendance and the explanatory factors. The explanatory variables used in the model are largely dictated by what is available in the HIES dataset. Nevertheless, this analysis does include a number of important variables mentioned in the literature (for example, Self and Grabowski 2008), such as father's and mother's education levels, household socioeconomic status, ethnicity of the child, gender of the child, and the number of children in the family. The regression analysis uses HIES data from 2010 and 2016–17.

34. **A comparison of the descriptive statistics for children enrolled in ECE and those not enrolled in ECE in 2016–17 reveals differences between these groups in a number of areas.** As summarized in Table 3, there are more females among children enrolled in preprimary, but male children outnumber females among those not enrolled in any grade. Among children with a disability, there are many more who are not enrolled in any grade compared to those who are enrolled in ECE. Average years of education of father and mother are lower for children who are not enrolled in school, and students from poorer families appear more likely to be out of school.

**Table 3: Descriptive statistics on factors affecting school attendance for children aged 5 years by enrollment status, 2016–17**

Variable	Not enrolled in any school		Enrolled in preprimary		Enrolled in other grades	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
The child is a female	0.46	0.49	0.51	0.50	0.50	0.50
The child lives in urban area	0.25	0.43	0.32	0.47	0.25	0.43
The child has a disability	0.06	0.24	0.03	0.17	0.04	0.19
Years of education of father	4.01	4.23	5.46	4.58	4.94	4.58
Years of education of mother	4.43	3.93	5.90	3.91	5.46	4.00
Number of children aged 0–17 years in the household	2.49	1.09	2.25	0.98	2.43	1.09
Consumption quintile	2.27	1.30	2.53	1.39	2.52	1.33
Number of observations	1,417		1,127		900	

Source: Based on authors' calculation using HIES, 2016–17.

35. **There is a statistically significant positive relationship between enrollment in ECE and mother's years of education.** This relationship holds for both years, even after controlling for other characteristics such as gender and disability status of the child, education level of the father, economic status of the household, urban status, and division where the household resides. The probit estimates are provided in Column (1) of Table 4 and Annex 1.<sup>16</sup>

36. **Female children are more likely, and children with disabilities less likely, to enroll in ECE.** In 2016, there was a positive relationship between enrollment in ECE and being female, while the relationship was negative but statistically significant at the 10 percent level in 2010. There was a statistically significant negative relationship between a child's disability status and enrollment in ECE in 2016. More specifically, the regression findings indicate that a child with a disability is 54 percent more likely not to be enrolled in preschool compared to a child with no disability, holding other factors constant. This relationship was not significant in 2010, presumably because the enrollment in ECE was low across the board then.<sup>17</sup>

37. **There is a weak correlation between household economic status and enrollment in ECE.** Children in the fourth poorest and the richest quintile were found to be more likely to enroll in ECE in 2016. In 2010, there was a statistically significant positive relationship between belonging to the richest quintile and enrollment in ECE.

<sup>16</sup> The population of interest for Column (1) is age 5 children not studying in other grades. Children age 5 studying in other grades are excluded from the analysis here.

<sup>17</sup> The variable indicating disability was missing in the 2005 HIES sample.

38. **Females and children with better educated mothers are more likely to be enrolled in PPE at the appropriate age (5 years) than at other ages.**<sup>18</sup> In Column (2) of Table 4 and Annex 1, children age 5 and currently attending PPE are compared with PPE students age 6 or older. Among the children attending PPE, 46 percent are of appropriate age. The estimates for age-appropriateness using this measure are largely similar to the estimates obtained in Column (1) for 2016, except for children residing in urban areas who are less likely to be enrolled in PPE at age 5. For 2010, mother’s years of education is the only variable that is significant at the 1 percent level. This means that mother’s education not only helps put the child in PPE classes but also contributes to ensuring age-appropriate enrollment.

39. **Among 5-year-old children currently enrolled in PPE or other grades, location of residence has a significant association with a child’s enrollment in ECE in 2010.**<sup>19</sup> Column (3) in Table 4 and Annex 1 show how the characteristics of enrolled children age 5 are associated with these children’s enrollment in PPE versus their enrollment in other grades. The results indicate that urban children and children from three of the seven divisions are more likely to be in PPE than in other grades in 2016. However, such relationships do not exist in 2010. Similarly, no obvious pattern can be seen for the other factors.

**Table 4: Marginal effects of probit estimates for enrollment in ECE and age-appropriate enrollments in ECE for 2016**

Variables	(1) Enrolled in ECE (versus not enrolled in school) for age 5	(2) ECE in age 5 versus other ages	(3) Age 5 children enrolled in PPE versus enrolled in other grades
The child is a female	0.146*** (2.740)	0.225*** (4.150)	0.084 (1.416)
The child lives in urban area	0.093 (1.508)	-0.126** (-2.066)	0.228*** (3.293)
The child has disability	-0.543*** (-4.069)	-0.352** (-2.474)	-0.245 (-1.460)
Years of education of father	0.019** (2.275)	0.030*** (3.713)	0.009 (1.036)
Years of education of mother	0.034*** (3.631)	0.019** (2.040)	0.001 (0.131)
Number of children aged 0–17 years in the family	-0.070** (-2.424)	-0.110*** (-3.702)	-0.072** (-2.201)
The child’s family is in second poorest quintile	0.101 (1.397)	-0.069 (-0.928)	-0.072 (-0.874)

<sup>18</sup> The population of interest for Column (2) is children who are currently in PPE. Children ages 5–12 who are not in PPE are excluded from the analysis here.

<sup>19</sup> The population of interest for Column (3) is children age 5 who are currently studying. Those children age 5 who are not in school are excluded from the analysis.



	(1)	(2)	(3)
Variables	Enrolled in ECE (versus not enrolled in school) for age 5	ECE in age 5 versus other ages	Age 5 children enrolled in PPE versus enrolled in other grades
The child's family is in third poorest quintile	0.016 (0.200)	-0.146* (-1.753)	-0.204** (-2.302)
The child's family is in fourth poorest quintile	0.157* (1.744)	-0.120 (-1.315)	-0.086 (-0.879)
The child's family is in the richest quintile	0.159 (1.465)	-0.306*** (-2.972)	-0.079 (-0.683)
The child lives in Chittagong division	0.072 (0.683)	0.019 (0.154)	0.052 (0.423)
The child lives in Dhaka division	0.221** (2.045)	-0.153 (-1.305)	-0.048 (-0.401)
The child lives in Khulna division	0.239** (2.033)	-0.254** (-2.040)	0.160 (1.203)
The child lives in Mymensingh division	0.297** (2.103)	0.171 (1.084)	-0.301** (-2.094)
The child lives in Rajshahi division	0.416*** (3.638)	-0.225* (-1.886)	0.312** (2.412)
The child lives in Rangpur division	0.535*** (4.728)	-0.138 (-1.163)	0.573*** (4.327)
The child lives in Sylhet division	0.129 (1.018)	0.313** (2.096)	0.035 (0.248)
Constant	-0.604*** (-4.617)	0.049 (0.351)	0.127 (0.854)
Observations	2,335	2,239	1,872

Source: Based on authors' calculation using HIES, 2016–17.

Note: z-statistics in parentheses; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## 2.4 Policy Options

40. **Bangladesh needs to increase enrollment in PPE.** The preprimary GER of 40.3 percent is low considering Bangladesh's aspirations to become a developed country by 2041. Among 5-year-old children in 2017, the enrollment rate was around 33 percent while almost 44 percent did not attend any school. This indicates that a large share of preprimary age children are still left out of the system. Access to ECE in earlier years also has the largest cognitive benefits to children. The low ECE enrollment rate (21 percent) among 4-year-old children suggests that it would be particularly important for Bangladesh to undertake measures to improve access for younger children, especially when expanding the provision of PPE.

41. **Interventions to support access to ECE would need to place special focus on children from socioeconomically disadvantaged families, especially those from rural areas.** The preceding sections clearly show that children from poorer households across all age groups are less likely to enroll in preschool. In terms of geographic location, 4- and 5-year-old children living

in rural areas have lower ECE participation rates than those from urban centers. ECE is most important for children of disadvantaged families as early developmental delays are likely to reduce their cognitive development and ability to earn, thus further intensifying income disparities when they become adult (World Bank 2014). The analysis also shows that efforts are needed to ensure access ECE in a timely, age appropriate manner, especially for male children.

42. **Financial assistance to children from the most economically disadvantaged families is one way to improve access to ECE.** Poverty-targeted stipends is a good approach to create demand and improve access to ECE for children from the poorest families. Stipends in the form of cash transfers conditional on attendance are likely to improve attendance, retention, and learning outcomes. Subsidies to families with more than one school-age child is also an option. For example, Singapore introduced the Children Development Co-savings scheme which enabled parents with more than one child to receive a government subsidy to pay for children's school fees. This is considered to have been an important factor in achieving more than 98 percent participation rate of children aged 4–6 year in preschool (Ting 2007).

43. **Public-private partnership to increase provision of ECE in rural and remote areas is another approach to bring more children from the peripheries into the system.** As discussed, the nongovernment sector already accounts for a major share of preprimary enrollment in Bangladesh. The government may consider providing a subsidy per child enrolling in an NGO or private sector ECD center in targeted areas where government provision is limited. Matching grants to non-state providers to establish ECD centers can also be used to support the expansion of ECE in remote areas, such as hilly and char areas. For example, South Africa has improved access to early childhood care and education services to children aged 3–5 years through partnership with non-state actors through a combination of the policies mentioned earlier.<sup>20</sup> South Africa introduced ECD conditional grants for provincial governments to fund expansion of ECD services and development of ECD infrastructure. These grants enabled additional resources for expansion of ECD infrastructure in addition to a per child subsidy provided to NGO-run ECD centers (Gustafsson, W. et al. 2017). Another good example of where public-private partnership has had a positive impact on the expansion of ECE services for targeted rural populations is in Mozambique where the government recruited NGOs to help improve ECD service provision and community-based management capacity in preschools in targeted rural areas. The NGOs were mainly responsible for providing learning materials, maintaining the preschools, and building community management capacity before handing over to the ECD community committee. After successful completion of four months of providing ECD services with performance indicating 80 percent of enrolled children attending, the ECD community committee takes over (Caillaud and Heinzl-Nelson 2016; cited in Gustafsson, W. et al. 2017).

44. **A needs assessment for increasing access to ECE for children with disabilities is critical.** Children with physical and/or cognitive disabilities face multiple disadvantages in accessing ECE programs. On the one hand, because of the limited provision of ECE facilities across the country, they too face challenges like many other children in enrolling in ECE programs. On the other

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<sup>20</sup> Between 2002 to 2014, ECE participation of children aged 3–5 years increased by 20 percentage points.

hand, even when ECE facilities are available, they usually do not have the appropriate curriculum and specialized teachers to meet the special needs of these children. Furthermore, children with disabilities from poorer families face even greater disadvantages as the special assistance they require is often beyond their reach due to resource constraints. It is important for the government to conduct a thorough needs assessment to gain a sound understanding of the challenges faced by, and needs of, this population group, and operationalize a plan for increasing their access to appropriate early learning programs. The plan would likely need to include both demand-side interventions such as poverty-targeted assistance as well as supply-side interventions such as the expansion of appropriate teacher training programs and disability-friendly facilities.

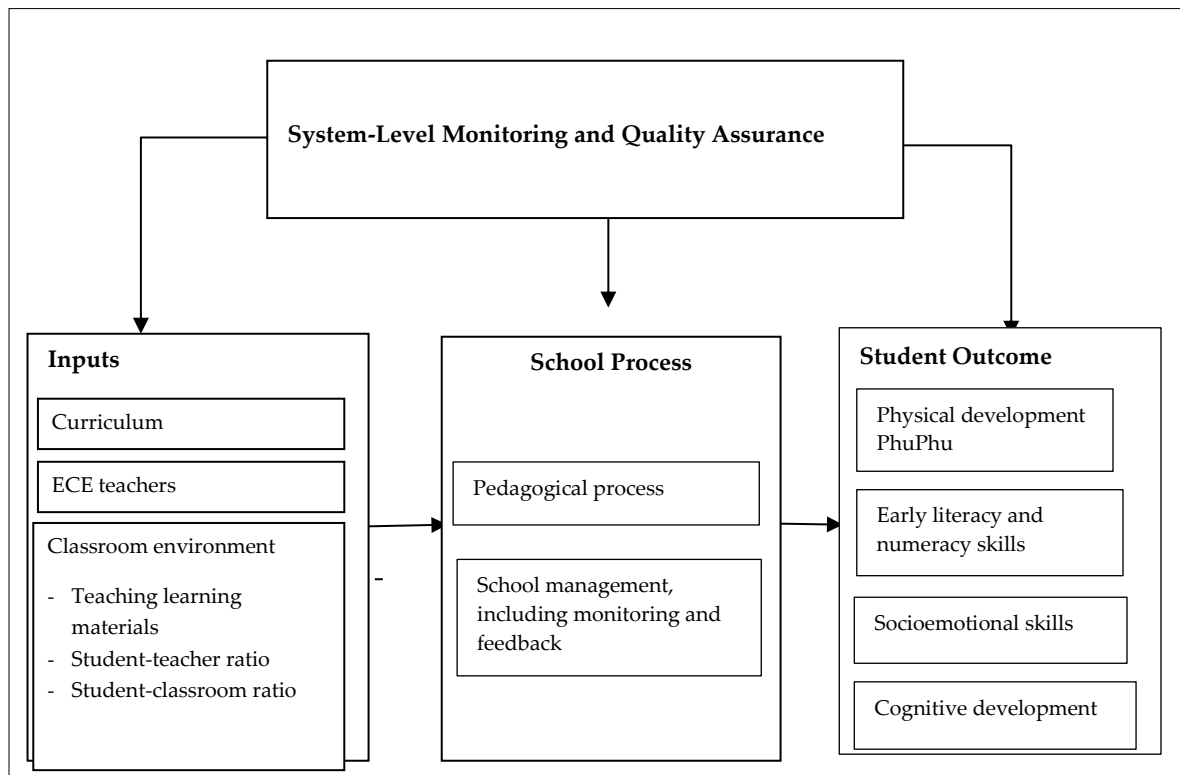
45. **Increasing parental and community awareness on the importance of ECE is important to ensure that children of appropriate age enroll in ECE programs.** As most parents in Bangladesh focus on academic learning, they are often not aware of the importance of social interactions and play in developing children’s cognitive and socioemotional skills. A significant share of children (around 20 percent) therefore directly enroll in Grade 1 without attending preschool. Moreover, late entry into preschool is a common phenomenon as wrong perceptions may be held in communities on the appropriate age of children enrolling in preschool in terms of mental and physical development. It is, therefore, critical for the government to implement interventions for raising awareness among parents and the community at large on the benefits of ECE for children aged 4–5 years.

## Chapter 3: Quality of ECE in Bangladesh

### 3.1 Framework for ECE Quality

46. **High quality ECE is critical for supporting children’s ability to develop strong foundational skills and readiness for school.** Figure 23 illustrates an analytical framework for analyzing the provision of quality ECE. The provision of quality ECE depends on critical inputs, including appropriate curriculum, qualified ECE teachers, and a conducive classroom environment (such as physical environment, teaching-learning and play materials, and child-teacher ratio). School-level processes, including the pedagogical process, linked closely to teachers’ qualifications and professional development, as well as school monitoring and management capacity, work to ensure that inputs are managed efficiently and effectively for achieving the desired student/child development outcomes. A strong ECE system also includes an efficient system-level quality assurance mechanism for monitoring, evaluating, and managing the quality of the system. The child development outcomes from ECE include physical development, early literacy and numeracy skills, and socioemotional skills.

Figure 23: Framework for ECE Quality



Source: Adapted from Bhatta et al. 2019.

## 3.2 Quality of Inputs

### 3.2.1 Preprimary Curriculum

47. **The national preprimary curriculum development and administration is handled mainly by the DPE, the NCTB, and the National Academy for Primary Education (NAPE), with support from district- and subdistrict-level entities.** The DPE, which is the implementing arm of MoPME, is responsible for the overall management and implementation of preprimary and primary education. The NCTB is responsible for developing and revising the national curriculum from preprimary to higher secondary (Grade 12/equivalent) levels as well as developing and refining textbooks and other TLMs based on the national curriculum.<sup>21</sup> The DPE and the NCTB are also responsible for the printing of PPE textbooks and supplementary materials and for their distribution to government and nongovernment schools. NAPE is responsible for orientating and developing master trainers and education managers for the PPE curriculum. The master trainers in turn orient PPE teachers at the district and subdistrict (upazila) level through the Primary Teacher Training Institutes (PTIs) and Upazila Resource Centers (URCs), respectively. The DPE coordinates the delivery of the PPE curriculum orientation to teachers.

48. **The current national preprimary curriculum was developed according to established principles for learning outcomes<sup>22</sup>.** The NCTB developed and rolled out the preprimary curriculum in 2014 with a focus on child development outcomes. According to the NCTB's Pre-Primary Curriculum Plan 2011, the curriculum is organized around nine core principles following global standard practices: (a) child centeredness, (b) children as active learners, (c) family involvement, (d) schools as responsive social institutes, (e) inclusiveness, (f) local culture and heritage, (g) relationship, (h) immediate environment, and (i) environmental friendliness in the development of the PPE curriculum. Based on these principles, the curriculum aims to achieve child development outcomes across four domains: physical and motor skills, social and emotional, language and communication, and cognitive development. However, an absence of regular child development outcome tracking following PPE limits the ability to determine the effectiveness of the curriculum in developing literacy and numeracy; physical skills; socio-emotional skills; and approaches to learning, despite its well-organized content and structure.

49. **Although the national PPE curriculum is designed to incorporate a play-based approach, PPE delivery in the classroom tends to focus on academics in practice.** This is often due to the underdeveloped pedagogical skills of teachers, inadequate play materials, and an emphasis on academic learning in government schools (CAMPE 2013). Government PPE teachers receive some training to implement play-based PPE in the classroom.<sup>23</sup> Yet these one-time short

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<sup>21</sup> In addition to developing the PPE curriculum, the NCTB is also responsible for developing supplementary TLMs such as teacher' manuals, flipcharts, flashcards, play materials, and storybooks to complement PPE textbooks.

<sup>22</sup> These principles were developed building on the existing standards and practices of NGOs implementing ECE as well as global best practices.

<sup>23</sup> The different type of play-based activities under eight categories include daily assembly and greetings; physical exercise; creative exercise; language exercise; creative exercises related to science, environment, art, structured play, science, and math; and safety related exercise and free play.

training programs are inadequate for ensuring that these teachers are fully equipped to effectively deliver the curriculum as well as identify and address the needs of the children. On the other hand, some NGO schools and private schools provide customized PPE training, including regular refresher training and mentorship, for PPE teachers to improve the quality of teaching. Additionally, a shortage of play materials and storybooks often makes effective PPE delivery challenging for teachers in government schools (CAMPE 2013; Islam, Das, and Roy 2016). Another challenge in implementing play-based PPE is the focus on academic learning in most schools. CAMPE (2013) notes that while some parents do recognize that academic aspects of preschool are often overwhelming for young children, there is a pervasive cultural mindset among most parents that schooling in general, including preschool, should focus on developing a child's academic skills. The introduction of two PPE textbooks focusing on Bangla language and numeracy skills development could be considered a result of the academics-focused mindset of officials.

50. **The government has recently partnered with NGOs in an effort to promote play-centered PPE in several pilot schools.** NGO-run schools follow customized early year learning

curricula, which emphasize play and joyful learning. For example, in 2015, BRAC launched its play-based ECE model focusing on child development outcomes rather than on academic outcomes, and it piloted the model in 300 GPSs in partnership with the DPE in 2018. The pilot aims to improve the PPE learning environment in these schools through the provision of play materials and child-friendly environments in classrooms (Box 1). Under this arrangement, one paraprofessional teacher selected by the school management committee and one PPE trained teacher implement different play-based activities in the pilot schools.

**Box 1: BRAC model for promoting play centered PPE**

Under the BRAC pilot in government primary schools, the classroom built environment and outdoor environment are reorganized to create more 'play-friendly' spaces for PPE children. The pilot schools are provided with low-cost play materials, books and arts corners, blocks corners, sand corners, and water corners. Relevant pictures and charts are placed at the eye level of children. Teachers and school children are guided to use play corners both inside and outside the classroom.

51. **The current PPE curriculum is undergoing a review to incorporate play and a set of newly introduced standards for child development outcomes.** The Early Learning Development Standards (ELDS) prepared by MoWCA and adopted by all relevant ministries, including MoPME, was officially launched in 2016 (see Annex 2). The ELDS cover 16 areas of child development to be attained through early years learning. Following the development of the ELDS, the revision of the PPE curriculum was initiated in 2018 with the aim of introducing the updated curriculum, textbooks, and supplementary materials in government preprimary classes by 2022.<sup>24</sup>

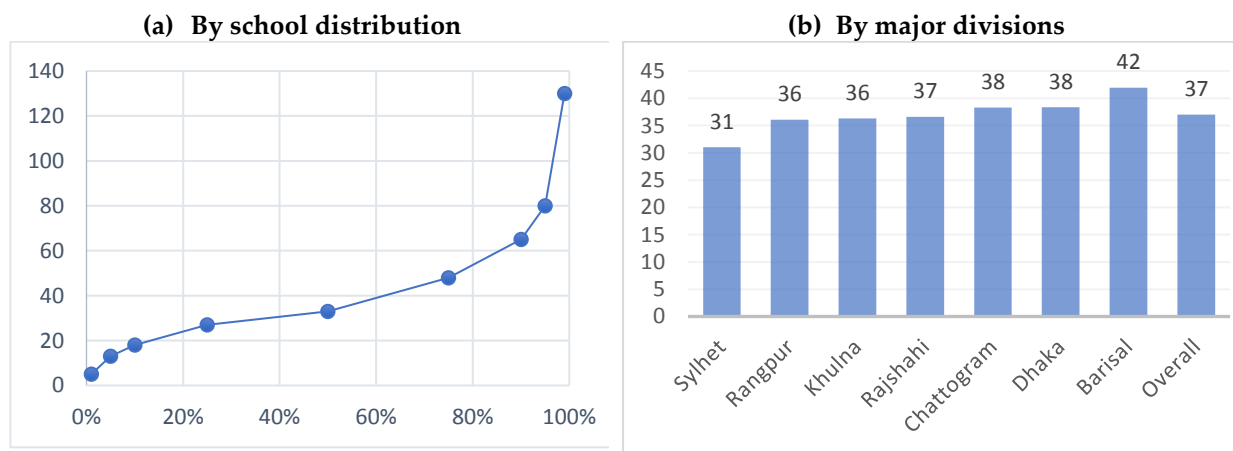
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<sup>24</sup> Fourth Primary Education Development Program (PEDP4) Document.

### 3.2.2 TLMs and Class Size

52. **Adequate availability of quality supplementary TLMs, including play materials, remains a challenge in the GPSs.** According to an assessment of preprimary implementation in government schools, around 65 percent of government preschool classrooms had charts/pictures hanging on the walls, of which only 47 percent had these displayed at the eye level of children (Islam, Das, and Roy 2016). While 87 percent had boards and chalks, only a quarter of the surveyed classrooms had supplementary teaching-learning and play materials. As per the PPE curriculum standards, each preprimary school/classroom should have four corners—book and arts, block, imaginative, and sand and water. However, the survey found that only around 35 percent of preprimary schools had book and arts corners, 26 percent had block corners, 31 percent had imaginative corners, and 14 percent had sand and water corners. The assessment also noted that, in practice, play was not adequately included as part of curricular activities in most of the preprimary classes, even when there was sufficient outdoor play space. NGO-run schools are more likely to be better resourced with teaching-learning and play materials compared to GPSs and other types of schools. CAMPE (2013) found that 99 percent of the NGO schools had charts; 95 percent had toys; 93 percent had drawing materials; over three-quarters had materials for physical exercise; and 43 percent had materials relevant for singing, dancing, and drama.

**Figure 24: Average student-teacher ratio (STR) in preprimary schools in Bangladesh; 2017**



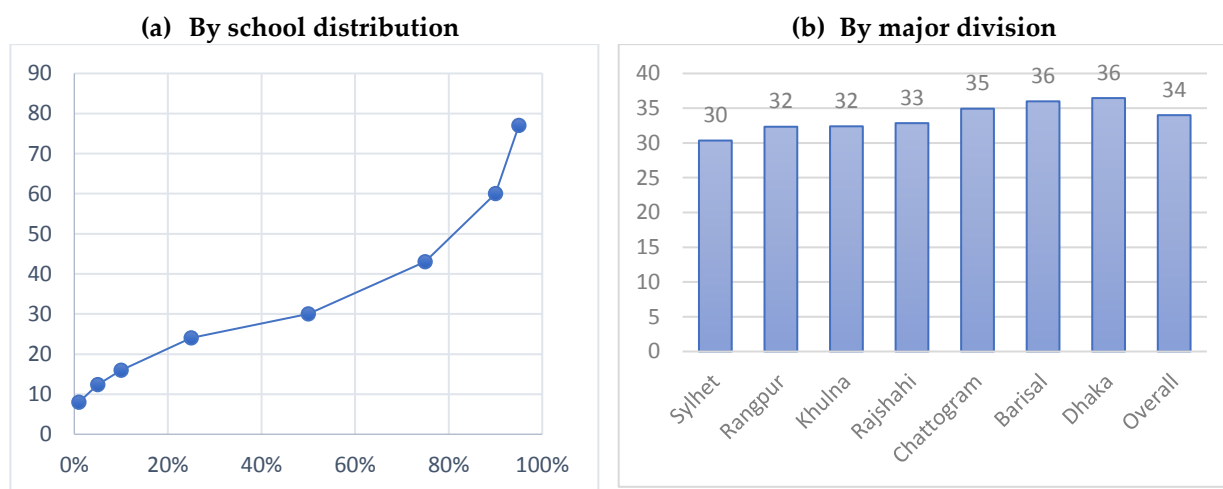
Source: Authors' estimates using APSC 2017.

53. **The target for the average student teacher ratio (STR) at the preprimary level set by the Bangladesh government is yet to be achieved.** An appropriate STR is important for ensuring the delivery of quality ECE. Studies show that smaller STRs may improve child-teacher relationships and reduce teacher stress, which in turn can help improve teaching quality and child development outcomes (Barnett et. al 2004; Morgan 2019). In Bangladesh, the average STR in preprimary is 37 to 1, around 23 percent higher than the recommended target of 30 to 1 set in MoPME's Preprimary Education Manual. However, as Figure 24 shows, the STR varies widely across schools, with more than 50 percent of schools having STRs above 33:1 and 25 percent having STRs above 48:1. The average STR also varies across divisions, with Barishal having an average of 42 children to be managed by one teacher. This is largely the result of preprimary

teacher recruitment not keeping pace with the expansion of government preprimary enrollments since 2014.

54. **Bangladesh still has a long way to go in meeting global standards for STR in PPE.** The global standard for STR set by the United Nations Children's Fund (UNICEF) is 20 pupils for one teacher in preprimary classes, which is significantly lower than the current official target (30:1) set by the Bangladesh government. The current average preprimary STR of 37:1 for Bangladesh is much higher than the 2017 averages for high-income countries (14:1), upper-middle-income countries (17:1), and lower-middle-income countries (20:1). It is also slightly higher than the average STR for low-income countries (34:1).<sup>25</sup>

**Figure 25: Average student-classroom ratio (SCR) in preprimary schools in Bangladesh, 2017**



Source: Authors' estimates using APSC 2017.

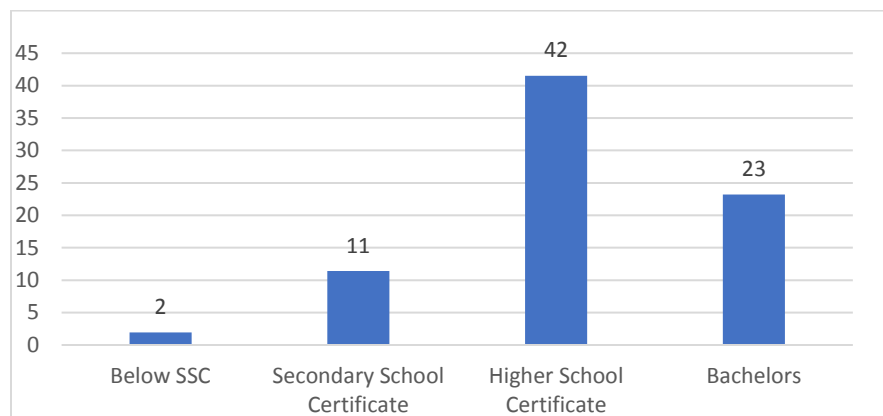
55. **The average SCR is around 34 children per preprimary classroom, though variation is wide across schools.** Only half of the schools have SCRs below 30 (Figure 25). The remaining schools have SCRs greater than 30. The average classroom size is relatively uniform across divisions, ranging between 30 and 36 children per classroom. It should be noted that preprimary classes in countries with developed preschool systems generally have at least two staff members (one teacher and a teacher aide or two teachers) to support a classroom with 20 children aged 4–5 years (Schachner et al. 2016). However, in the case of Bangladesh, government preprimary classes function with only one teacher. Given the large class sizes and absence of additional support, providing quality ECE to the children is a big challenge for PPE teachers.

<sup>25</sup> UNICEF 2017. *Note:* The average STR reported, however, conceals a number of nuances. For example, many countries show a lower average ratio, but those numbers are misleading because very few children have access to preprimary services in those countries. Despite these variations, nonetheless, many countries in lower-middle-income countries have been able to reach average of STR 20 to 1.



### 3.2.3 Status of Preprimary Teachers

**Figure 26: Share of preprimary teachers by education qualification in 2017 (%)**



Source: Authors' estimates using APSC 2017.

Note: SSC = Secondary School Certificate.

56. **Most PPE teachers are female with modest levels of education qualifications.** According to APSC 2018, there are almost 30,000 preprimary teachers, of whom 74 percent are females. As most teachers are females, the majority of PPE teachers hold the minimum requirement of a higher secondary certificate degree,<sup>26</sup> while around 23 percent have a bachelor's degree or higher. Around 13 percent of PPE teachers have a secondary school certificate degree (Grade 10/equivalent) or below. These PPE teachers are either those recruited under special consideration in GPSs when the minimum qualifications were lower or those belonging to nongovernment schools such as NGO- and community-based schools.<sup>27</sup> A small share of PPE teachers have a professional degree in education.

**Table 5: Share of PPE teachers with various professional development trainings (%)**

Type of professional degree	Number of PPE teacher	Percentage share of total PPE teachers (%)
<b>Basic professional training</b>		
Certification in education	1,680	10
Diploma in primary education	448	3
No basic professional degree	14,805	87
Total	16,933	100
<b>Higher level professional training</b>		
Diploma in education	470	3
Bachelor's in education	713	5
Master's in education	345	2

<sup>26</sup> The minimum requirement for female PPE teachers in government schools was a higher secondary school (Grade 12/equivalent) degree up until 2018. On the other hand, the minimum educational qualification required for male PPE teachers was a minimum of bachelor's degree.

<sup>27</sup> Older recruitment guidelines had the provision for recruitment of assistant teachers with minimum secondary school certification under special consideration (page 217 of Teacher Recruitment Plan).

Type of professional degree	Number of PPE teacher	Percentage share of total PPE teachers (%)
Others	344	2
No higher professional degree in education	13,242	88
Total	15,114	100

Source: Authors' estimates using APSC 2017.

57. **While most PPE teachers have received curriculum training, few have received any other type of professional development training.** According to the APSC, around 83 percent of 29,942 PPE teachers in GPSs had completed the mandatory 15-day PPE orientation training as of 2018. However, other than the PPE orientation training, few teachers have received in-service basic professional training. As Table 5 shows, around 10 percent of PPE teachers have a certificate in education and around 3 percent have a diploma in primary education. In terms of higher-level professional degrees, only around 5 percent have a bachelor's degree in education while another 2 percent have a master's degree in education. Higher-level professional education programs are offered at university and generally pursued as pre-service degrees for teaching careers in Bangladesh.

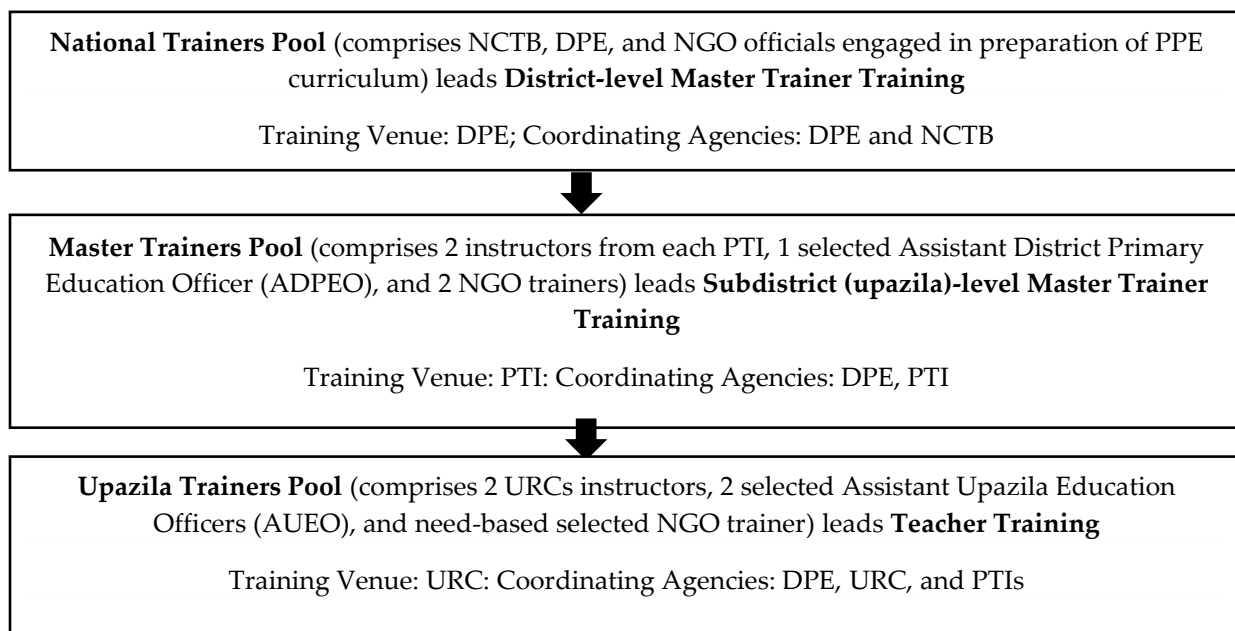
58. **There is a shortage of preprimary teachers in the government schools.** According to APSC 2018, around 29,942 PPE teachers were deployed against 38,278 government schools with PPE classes. This indicates that around 22 percent of GPSs with PPE classes are operating without a dedicated and trained preprimary teacher. Moreover, another 25,202 newly nationalized government schools are listed as offering preprimary classes, but no information is available on the current status of PPE teacher availability in these schools. To address teacher shortage in PPE, the government plans to recruit 26,000 additional teachers by June 2023. Despite these efforts, it is anticipated that there will continue to be a shortage of teachers in the future as the government's plans to expand PPE to two years will require a significant increase in the number of preprimary teachers.

59. **Moreover, the current provision of professional development opportunities for PPE teachers in government schools has not translated into effective pedagogy in the classroom.** The current PPE teacher training involves mainly a short in-service training conducted over a period of 15 days. The training was introduced to orient newly recruited and existing PPE teachers in using the curriculum and other learning materials. The training provides orientation on the PPE package (curriculum and materials) while covering some aspects of child psychology and child development. It also includes practical sessions on classroom instructional methods. Despite the provision of this training, studies suggest that teachers are more focused on creating an academic environment in the classroom instead of creating a play-based and joyful learning environment (CAMPE 2013). Strengthening the monitoring and teacher support/feedback system can help in ensuring that the training received is effectively translated to the classroom.

60. **Furthermore, delays in the implementation of the DPE Training Plan 2018–2023 for PPE have left a large number of PPE teachers without training on ECE.** As of 2018, around 83 percent of teachers had completed a 15-day in-service training aimed at familiarizing them with the PPE

curriculum (APSC 2018). This indicates that children in around 5,000 schools<sup>28</sup> are going through PPE without a trained teacher, raising concerns about the quality of the ECE that they are receiving. As PPE expansion is expected to continue, the number of teachers requiring training will continue to increase and it will become ever more challenging to complete teacher training activities on time. Interviews with officials suggest that the delays in training implementation can be attributed mainly to inadequate staffing, resource constraints, and coordination challenges across various entities and levels involved in training delivery (Figure 27). In particular, the chronic shortage of instructors at the PTIs at the district level and at the URCs at the subdistrict levels is a key factor affecting the timely delivery of training to teachers. As of 2019, more than one-third (around 38 percent) of sanctioned instructor positions remain vacant at the PTIs.<sup>29</sup> As a result, the training capacity remains at 200 teachers per PTI annually, far below the capacity needed for completing training for preprimary and primary teachers in the system.

**Figure 27: Flowchart on training plan implementation**



### 3.2.4 Monitoring and Quality Assurance System for ECE

61. **MoPME has established quality standards for PPE centers which provide guidance on M&E of the provision of preschool.** The Operational Framework for Preprimary Education, developed by MoPME, sets minimum standards and requirements for preprimary classroom physical infrastructure, facilities, and staffing (see Annex 3). The guidelines are comprehensive and provide the basis for supervision checks, which are to be conducted as part of regular monitoring of primary government schools by upazila education officers (UEO), AUEOs, and the

<sup>28</sup> These 5,000 GPS schools have deployed PPE teachers without training. As mentioned in the preceding sections, there are many GPS and possibly newly nationalized government primary schools (NNGPSs) conducting preprimary classes without an assigned and trained PPE teacher, raising severe quality concerns.

<sup>29</sup> Administrative data from DPE; Needs Assessment for Double Shifts in PTIs, 2019.

URC instructors (Islam, Das, and Roy 2016).<sup>30</sup> According to the government's PPE operational framework, UEOs and URC instructors should visit preprimary classrooms once a quarter while AUEOs are to conduct more regular school supervisory visits. Additionally, annual school censuses collect some limited information on the physical infrastructure of preprimary classrooms, PPE teacher numbers, and teacher training.

62. **At the school level, the school principal (head teacher) and preprimary teacher are responsible for ensuring the delivery of quality PPE in the classroom.** All PPE teachers are provided with a checklist for monitoring and assessing child development outcomes for each child at the end of the school year. The checklist contains 16 criteria following the ELDS.<sup>31</sup> However, till now there has been no review of whether this is being implemented or any analysis of the checklist. Nonetheless, there is a provision under PEDP4 for two rounds of studies to be conducted on the use of this checklist by teachers in monitoring child outcomes.

63. **Despite the progress made, the overall M&E system for ECE is weak.** Though MoPME has assigned education officials to monitor preprimary provision at the district and sub-district levels, regular supervision is not maintained. A survey from 2015 found that less than 5 percent of preprimary classrooms were visited by UEOs, around 20 percent were visited by AUEOs, and less than 1 percent were visited by URC instructors during a given quarter (Islam, Das, and Roy 2016). The survey also notes that monitoring of preprimary classrooms by government personnel is less frequent for schools in remote areas, including rural, hilly, and island areas. Effective monitoring and supervision is reported to be hampered by other official responsibilities of the education personnel (Islam, Das, and Roy 2016). Moreover, the data collection on ECE is limited to a few indicators tracked in the annual school census. There is a need for comprehensive and regular data collection on ECE provision across public, private, NGO, and religious preschool centers. At present, private ECD centers remain largely outside the scope of national monitoring and quality assurance efforts. Child development outcomes are yet to be tracked at the national level, which would be useful in understanding the quality of ECE provision especially in comparison to global standards. The implementation of stronger quality assurance in ECE would require significant capacity enhancement at school, subdistrict, and district education offices as well as in the central institutions.

64. **It is also relevant for Bangladesh to explore different policy reforms that have helped other countries improve the quality of service delivery and expand the reach of ECE programs.** To address constraints in the supply of qualified ECD workers, short-term skills training programs for ECE teachers, caregivers, and ECD center managers have been used in countries such as Liberia and Rwanda. To upgrade skills of existing preschool teachers, some countries such as Finland and Singapore are using in-service qualifications frameworks for preschool teachers, grants to universities for providing and expanding preschool teacher training, and incentive bonuses for well-performing schools aimed at attracting and retaining teachers. Moreover, developed countries with the best preschool systems regularly monitor and assess

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<sup>30</sup> Upazila refers to subdistrict level.

<sup>31</sup> See Annex 4.

preschool performance through national quality assurance systems. Box 2 provides further details on these examples.

#### **Box 2: Examples of improving quality of ECE services**

**Singapore:** The Preschool Education Teacher Training and Accreditation Framework, which sets the minimum professional qualifications for preschool teachers (470 hours of training) and principals (1,200 hours of two-tier diploma training), paved the way for ensuring that preschools are staffed with adequately trained teachers. Furthermore, the gradual requirement upgrading—one in four teachers must have a diploma in preschool education training and all other teachers must be at least certificate-trained by January 2008—also provided a specific timeline and guideline to ensure quality PPE. Alongside, the Preschool Qualification Accreditation Committee set up by concerned ministries also ensured quality standards, requirements, and consistency in the training program. To incentivize schools, an annual recurrent grant was also provided to qualifying kindergartens to ensure development and retainment of qualified teachers. A national curriculum framework was made available to all kindergartens and child care centers as a tool to customize suitable programs to meet the specific needs of the children (Ting 2007).

**Finland:** Finland ensured the presence of qualified teachers and caregivers in institutions through the Qualification Requirements for Social Welfare Professionals Act (2005). Furthermore, additional funding has been granted to universities to increase the intake and training of kindergarten teachers. The new Early Childhood Education and Care legislation has also enabled the Ministry of Education and Culture to engage the Finnish Education Evaluation Center (FINEEC) to assess the quality and delivery of ECEC. The quality evaluation model introduced by FINEEC also verifies the enactment of different acts, frameworks, and comprehensive analysis engaging different stakeholders to evaluate the outcome of ECEC services.

**Liberia:** To increase the ECE workforce, two ECD training tracks were developed and incorporated into an established skills program targeting unemployed adolescent girls under Liberia's Economic Empowerment of Adolescent Girls and Young Women program.

**Rwanda:** This pilot project placed unemployed young women in a training program to create caregivers, with a training curriculum strongly focused on both ECD and broader work readiness skills. It is now being scaled up, in alignment with the government's professional education and training institutions and with a focus on strengthening the enabling environment (including accreditation and quality assurance of the training service providers).

*Source:* FINEEC 2017; Ting 2007; World Bank 2018.

### **3.3 Quality of Outcomes**

65. While ECE can contribute significantly to improving the development outcomes of preschool age children, the development trajectories of these children are also heavily influenced by what they are exposed to in earlier stages of their lives. In particular, research findings show that adequate stimulation and nutrition, especially during the first two years, is critical for children's physical, cognitive, and socioemotional growth and development.

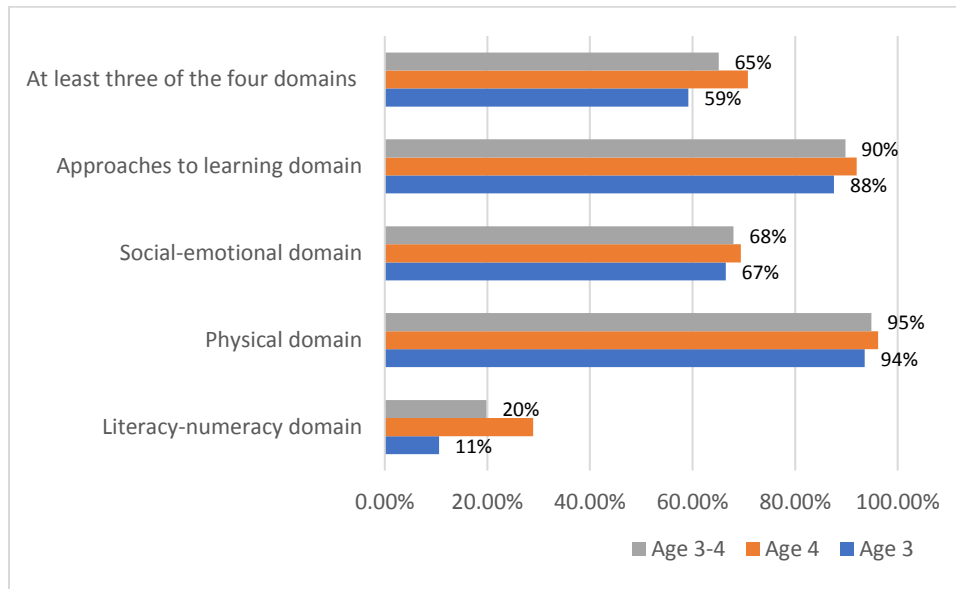
66. Several global studies have provided evidence on the links between early childhood nutrition and development (Aboud and Yousafzai 2015; Engle et al. 2011; Grantham-McGregor et al. 2014; Larson and Yousafzai 2015; Ousafzai et al. 2016). Stimulation and nutrition

interventions delivered in the first two years of a child’s life in low-income and middle-income countries have consistent short-term benefits to children’s early development and growth outcomes. A meta-analysis of early stimulation and nutrition interventions conducted between 2000 and 2013 in low-income and middle-income countries reported that responsive stimulation had a medium effect while nutrition supplementation with or without nutrition education had a small effect on cognitive development at two years of age. A systematic review of combined stimulation and nutrition interventions reported that stimulation consistently benefited child development, and proper nutrition usually improved health status and growth though it sometimes also improved child development outcomes (Chaudhery 2019). A recent longitudinal study conducted in a program setting in a rural highly disadvantaged low- and middle-income population demonstrated that responsive stimulation can provide sustained development benefits to children even two years after the end of the intervention (Chaudhery 2019).

67. Due to data limitations within Bangladesh, however, this section will primarily focus on socioeconomic and education related covariates of child development outcomes. It will analyze the status and determinants of child development outcomes of children aged 3 to 5 years, using available data for these covariates from different surveys.

### 3.3.1 Findings from the MICS Data

**Figure 28: Child development outcomes across domains (ECDI scores)**



Source: Authors' estimates using MICS 2012–13.

68. **The MICS has parent-reported child development outcome information, which can be used to estimate the share of children who are developmentally on track as perceived by the parents.** The MICS includes a series of questions covering four development outcome domains: literacy and numeracy, physical, socioemotional, and approaches to learning. Responses to these questions are used to compute the Early Childhood Development Index (ECDI), which measures the percentage of children who are developmentally on track in at least three of the four domains.

69. **The ECDI shows that only around 65 percent of children aged 3–4 years were developmentally on track in 2012–13 (Figure 28).** There were, however, significant differences in outcomes across the four domains. While over 90 percent of the children were on track in terms of physical development and the ability to learn, a large percentage of children were lagging behind in the development of literacy-numeracy skills and socioemotional skills. More specifically, only one out of five children aged 3–4 years was developmentally on track for literacy-numeracy skills. Similarly, slightly above two-thirds of children were on track in the socioemotional domain. Across age groups, older children are more developmentally on track—around 71 percent of 4-year-olds compared to 59 percent of 3-year-olds. Particularly in the domains where children are falling most behind—literacy-numeracy and the socioemotional development—older children are more likely to be on track. For instance, 4-year-old children are almost three times more likely to be on track in the literacy-numeracy domain compared to 3-year-olds. This is probably because older children tend to be more mature and are more likely to be enrolled in preschool where gains in learning and socioemotional skills are expected to progress.

**Table 6: Share of children developmentally on track by location, gender, wealth, and ECE attendance (in %)**

	ECDI score		
	3-year-olds	4-year-olds	3- to 4-year-olds
Overall	59.2	70.8	65.1
Location			
Urban	64.1	77.1	70.6
Rural	58.2	69.7	64.0
Gender			
Male	57.3	68.7	63.0
Female	61.2	73.2	67.2
Wealth quintile			
Poorest	53.8	64.3	59.1
Second poorest	57.9	67.8	63.0
Middle	60.1	73.4	66.6
Second richest	61.6	75.2	68.5
Richest	69.2	83.0	76.0
ECE attendance			
Attending	61.3	84.3	79.2
Not attending	59.0	67.0	62.7

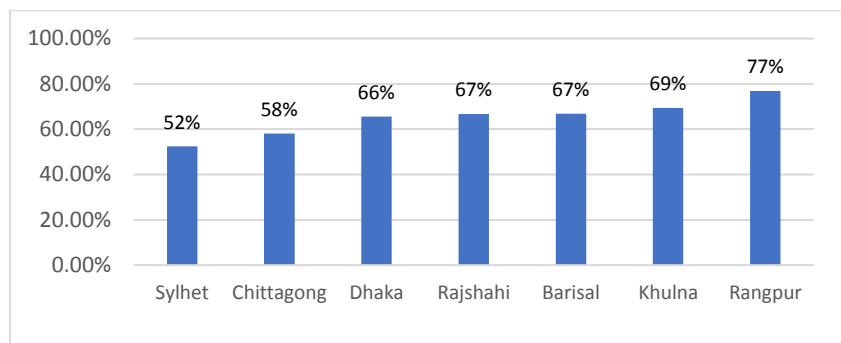
*Source:* Based on authors' calculation using MICS 2012–13.

*Note:* ECDI score: Percentage of children developmentally on track in at least three out of the four domains.

70. **There were also notable differences in child development outcomes across genders, geographic areas, and income groups, with male children, children from rural areas, and children from less wealthy families less likely to be developmentally on track.** Around two-thirds of male children aged 3–4 years were developmentally on track while this figure stood at 67 percent for females (Table 6). A lower share of children from families living in rural areas (64

percent) were meeting ECDI targets as opposed to those living in urban areas (71 percent). Around 64 percent of children age 4 from the poorest wealth quintile were developmentally on track while this figure stood at 83 percent for those from the richest quintile. Across age groups, the share of 4-year-old children developmentally on track was higher than the share of 3-year-olds across all socioeconomic characteristics.

**Figure 29: Share of 3- to 4-year-olds children developmentally on track by division**



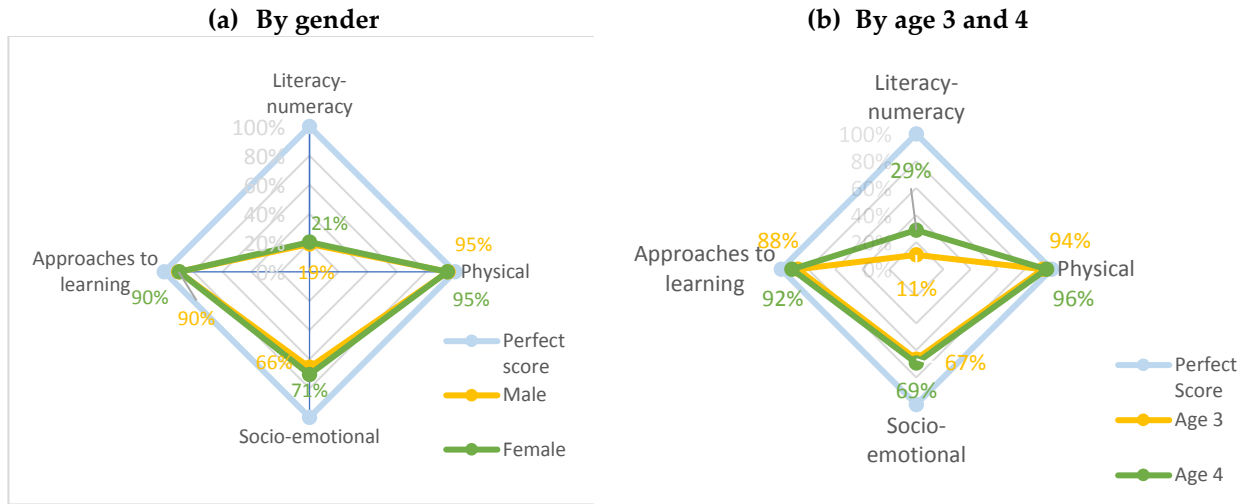
Source: Authors' estimates using MICS 2012–13.

71. **Across geographic locations, Sylhet and Chittagong divisions were falling behind in child development outcomes.** According to the ECDI, around 52 percent of children aged 3–4 years in Sylhet and 58 percent in Chittagong were developmentally on track in 2012–13 (Figure 29). In contrast, Khulna and Rangpur division had better performance—nearly 77 percent of children in Rangpur and almost 70 percent in Khulna were meeting ECDI targets. Nonetheless, a large number of children are not meeting development outcomes, indicating the need to enhance ECD efforts, especially with a focus on regional disparities.

72. **Children who attend early childhood programs are also more likely to be developmentally on track.** Among children aged 3–4 years, 79 percent of those who were enrolled in ECE were meeting at least three out of the four development domains as opposed to only 63 percent of those who did not attend any ECE program. This effect is more pronounced for slightly older children—around 84 percent of 4-year-old children compared to 61 percent of 3-year-old children who attended preschool were developmentally on track. The corresponding figures for those not enrolled in ECE are 67 percent for age 4 and 59 percent for age 3 children.



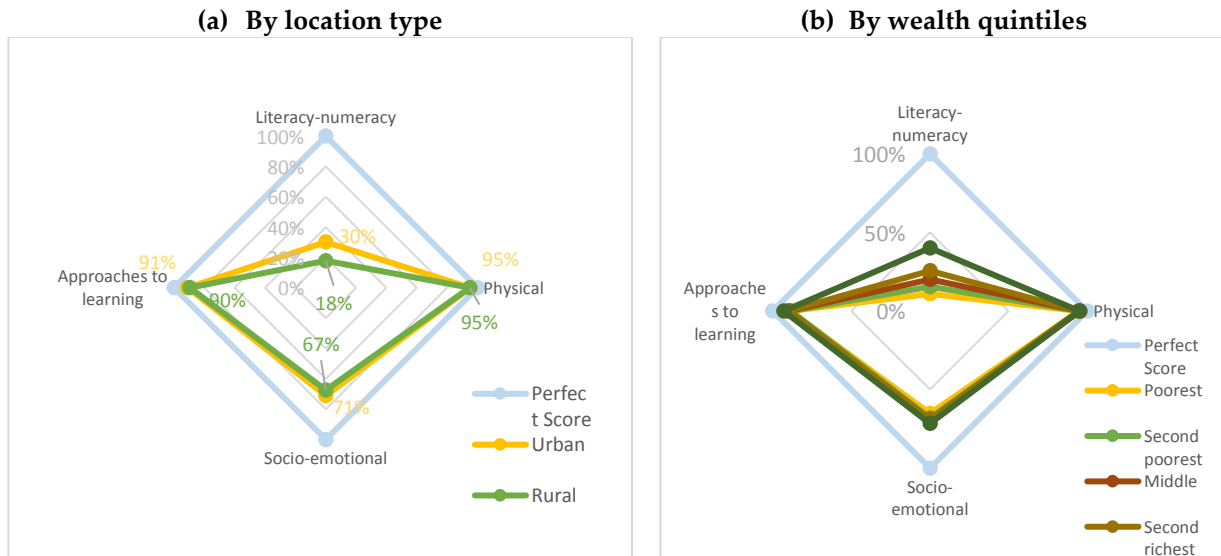
**Figure 30: Child development outcomes across domains, 2012–13**



Source: Based on authors' calculation using MICS 2012–13.

73. **In all four development domains, disparities are less prominent across gender and more visible with age.** With the exception of socioemotional development, there is not much disparity across child development domains by gender. A higher share of female children (71 percent) were developmentally on track compared to male counterparts (66 percent) for the socioemotional domain. There were no significant disparities in child development between male and female children across the literacy-numeracy, learning, and physical domains. However, when considering age cohorts, older children were more likely to be developmentally on track. As Figure 30 shows, the share of 4-year-olds developmentally on track has been consistently higher compared to 3-year-olds across the four domains.

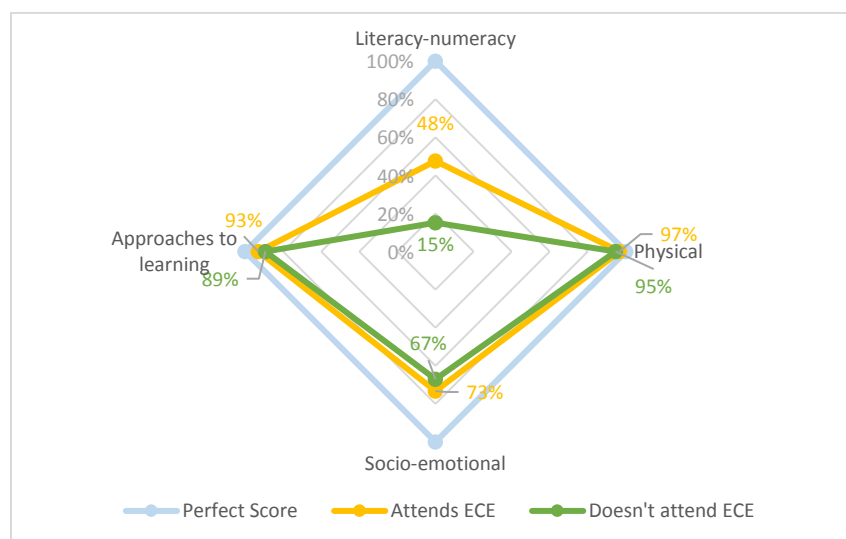
**Figure 31: Child development outcomes across domains, 2012–13**



Source: Authors' estimates using MICS 2012–13.

74. **Children from rural and poor families were less developmentally on track across the four domains.** Especially when considering literacy-numeracy skills, the urban-rural disparity was found to be quite pronounced. Around 30.2 percent of urban children compared to 18 percent of rural children were developmentally on track in terms of literacy-numeracy skills. This may be a reflection on access to and quality of early year learning among children (Figure 31). The MICS also shows that participation in preschool was higher among children living in urban areas compared to those living in rural areas. The quality of such programs is also likely to be higher in urban areas. For the remaining three domains, though urban children are developmentally more on track, the differences are slight. Similarly, when considering household wealth, the disparity across the literacy-numeracy domain was found to be quite stark. While only 11 percent of children from the poorest families were developmentally on track in literacy-numeracy skills, this figure stood at 40 percent for children from the richest families. On approaches to learning, around 93 percent of children from the richest households were developmentally on track while the share of those from the poorest families was 88 percent. Similarly, a higher share of children from wealthier families were meeting development targets across socioemotional skills compared to those from poorer households. As discussed in Chapter 2, children from higher-income households are more likely to participate in early year learning programs, which would also explain the differences in gains across these three domains, as discussed in the following paragraphs.

**Figure 32: Child development outcomes across domains by ECE attendance**



Source: Authors' estimates using MICS 2012–13.

75. **Children who attend ECE programs were more likely to be developmentally on track compared to those who do not.** Around 79 percent of the children who attended ECE programs were developmentally on track as opposed to only 63 percent of children who did attend any preschool (Table 6). The difference was particularly large in the literacy-numeracy domain, where around 48 percent of children who attended ECE programs were developmentally on track compared to only 15 percent of those who did not attend (Figure 32). The shares of children who were developmentally on track in the other three domains were also higher for those who

attended ECE, but the differences between the two groups were relatively small. Attendance in ECE programs is closely linked to children developing these critical skills in the early years (World Bank 2014).

76. **Regressing child development outcomes on various covariates demonstrates that the probability of a child being developmentally on track is influenced by several individual and household socioeconomic characteristics (Table 7).** Controlling for other factors, a female child is around 12 percent more likely to be developmentally on track than a male child. Age also has a positive relationship with child development outcomes, with 4-year-old children more likely than 3-year-olds to be developmentally on track. Attendance in ECE has a statistically significant positive effect on child development, whereby a child is 37 percent more likely to be developmentally on track if attending preschool, holding all other factors constant.

77. **Household wealth and mother’s education are also important factors in determining a child’s development progress.** A child’s probability of being developmentally on track significantly increases with household wealth—a child from the richest wealth quintile is 29 percent more likely to be developmentally on track compared to a child from the poorest quintile. Mother’s education level also plays a significant role, with the probability of the child being developmentally on track increasing progressively with mother’s education level. A child with a mother who completed primary education is around 8 percent more likely to be developmentally on track compared to a mother with no education, while the probability increases to 38 percent with a mother who completed secondary or higher education. In terms of geographic location, a child’s probability of being developmentally on track is highest in Rangpur and lowest in Barishal. A child living in Rangpur is almost 31 percent more likely than a child living in Barishal to be developmentally on track.

**Table 7: Factors affecting likelihood of child being developmentally on track**

<b>Dependent variable: Child is developmentally on track = 1</b>	
The child is a female	0.123*** (4.201)
The child is 4 years old	0.282*** (9.434)
The child lives in urban area	0.071 (1.636)
The child attends ECE	0.370*** (8.036)
The child's family is in second poorest quintile	0.026 (0.643)
The child's family is in third poorest quintile	0.120*** (2.660)
The child's family is in fourth poorest quintile	0.140*** (2.837)
The child's family is in the richest quintile	0.291*** (4.810)

<b>Dependent variable: Child is developmentally on track = 1</b>	
The child lives in Chittagong division	-0.259*** (-4.504)
The child lives in Dhaka division	-0.078 (-1.383)
The child lives in Khulna division	0.012 (0.187)
The child lives in Rajshahi division	-0.025 (-0.370)
The child lives in Rangpur division	0.307*** (4.863)
The child lives in Sylhet division	-0.353*** (-5.336)
The education level of child's mother is primary incomplete	0.006 (0.130)
The education level of child's mother is primary complete	0.078* (1.664)
The education level of child's mother is secondary incomplete	0.210*** (5.018)
The education level of child's mother is secondary or higher	0.377*** (5.715)
Constant	0.005 (0.083)
Observations	8,145

*Note:* Estimates are shown in marginal effects (that is, changes in outcome probability, whether a child is developmentally on track in at least three of four domains, with a unit of change of the covariate while keeping all other variables constant).

z-statistics in parentheses; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### 3.3.2 Findings from a Sample-based Impact Evaluation of an ECE Program

78. **Child development assessment data from an ongoing impact evaluation of a small-scale ECE program called EYPP implemented by Save the Children International (SCI) provide further insights into the factors affecting child development outcomes.**<sup>32</sup> The child development outcomes data used in this evaluation are based on a school readiness assessment of individual children conducted using SCI's International Development and Early Learning Assessment (IDELA) instrument (Annex 4).<sup>33</sup> While these data are not nationally representative, they are relatively recent and based on actual assessments of individual children rather than on parental perceptions of child development as in the case of the MICS data. Hence, they enable us to make more direct inferences about the relationship between ECE attendance, child characteristics, and child development outcomes.

<sup>32</sup> The impact evaluation is being conducted with preschool children in 100 schools in the district of Meherpur in Bangladesh.

<sup>33</sup> See Annex 4 for more details on IDELA child development domains and interpretation.

**Table 8: Average IDELA score (out of total of 100) by socioeconomic factors, 2018**

	Mean	Std. dev.
<b>Overall</b>	58	20.1
<b>Gender</b>		
Male	56.8	19.6
Female	59.2	20.5
<b>Wealth quintile</b>		
Poorest	56.1	20.8
Second poorest	56.3	20.2
Middle	57.2	18.9
Second richest	56.4	20.1
Richest	64.7	19.0
<b>ECE attendance</b>		
Attending	63.4	17.3
Not attending	41.8	19.3

Source: Based on authors' calculation using EYPP 2018 data.

79. **The findings on overall child development outcomes based on data from this impact evaluation are qualitatively similar to the findings obtained from the MICS data.** The average IDELA score for children in this sample was around 58 (compared to a maximum possible score of 100), indicating significant scope for improving the developmental outcomes of these children (Table 8). Female children had an average score of 59, slightly higher than the score for their male counterparts. However, the disparities in average score become starker when considering household income. Children from the poorest families scored an average mark of 56 while those from the richest families had an average score of around 65. The largest difference in average score is observed when considering ECE attendance. Children who attended an ECE program scored on average 21 points higher than those who did not attend any preschool program.

**Table 9: Average IDELA score across the six domains, 2018**

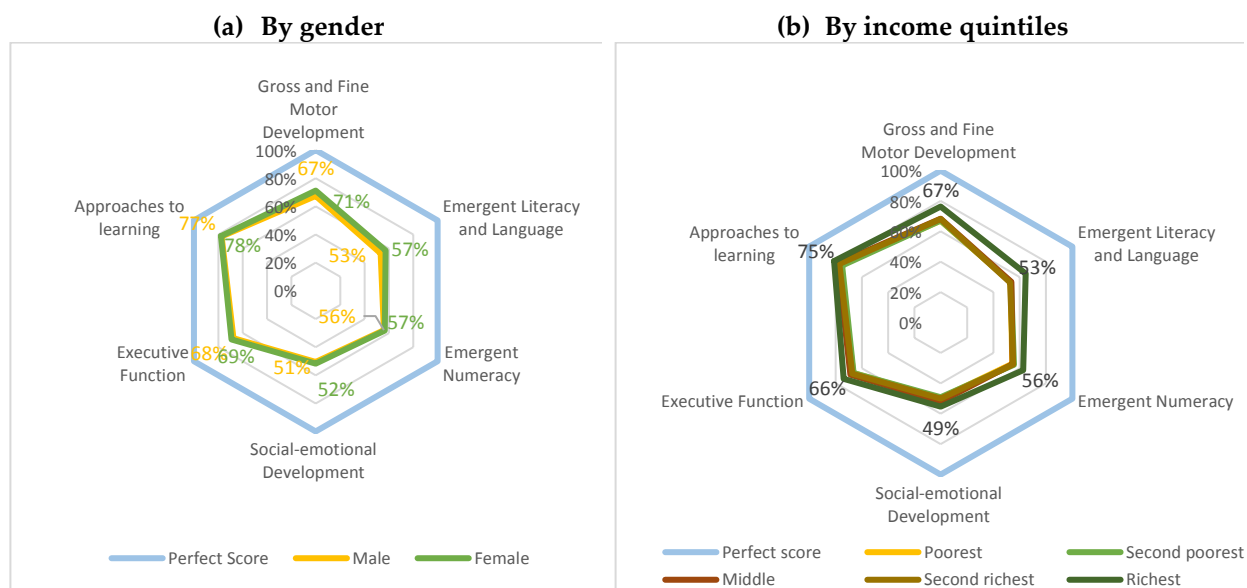
Domain	Mean	Std. dev.
Gross and fine motor development	69.3	26.7
Emergent literacy and language	55.2	25.1
Emergent numeracy	56.3	19.3
Social-emotional development	51.2	22.8
Executive function	68.3	28.2
Approaches to learning	77.5	26.0
Total IDELA score	58.0	20.1

Source: Based on authors' calculation using EYPP 2018 data.

80. **Domain-specific findings based on the impact evaluation data are also largely consistent with the finding from the MICS data and suggest that there is significant scope for improving children's development across all domains (Table 9).** The impact evaluation data allow for the disaggregation of outcomes into six domains: gross and fine motor development, emergent literacy and language, emergent numeracy, social-emotional development, executive function, and approaches to learning. Out of the six domains, the three areas where children had

the lowest average score were socioemotional skills (51.2), emergent literacy and language (55.2), and emergent numeracy (56.3). On the other hand, children on average scored higher on approaches to learning (77.5), gross and fine motor development (69.3), and executive function (68.3).

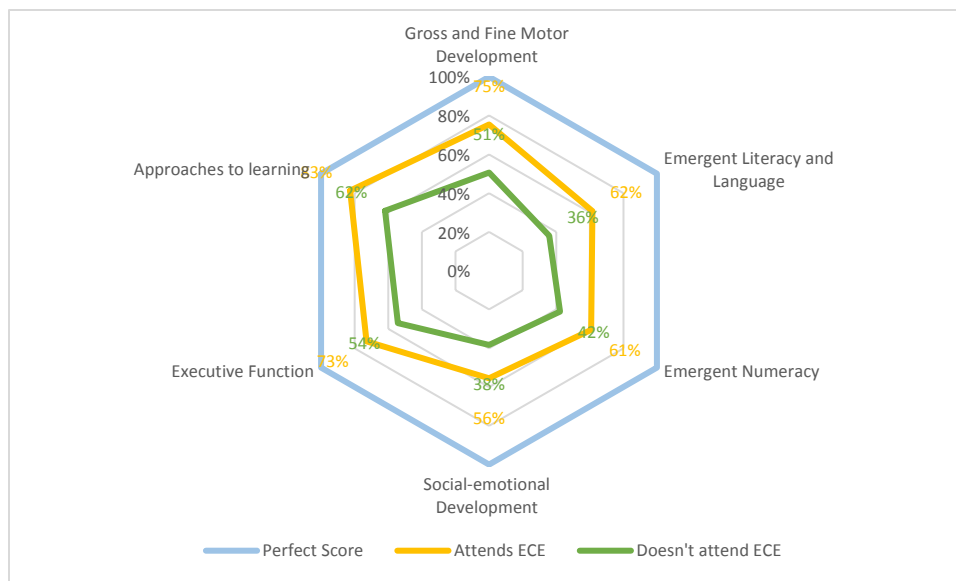
**Figure 33: Child development outcomes across domains, 2018**



Source: Authors' estimates using EYPP 2018 data.

81. **An examination of disparities across genders, wealth quintiles, and geographic areas also shows results similar to those based on the MICS data.** Female children slightly outperform their male counterparts, particularly in the two domains of gross and fine motor development and emergent literacy and language (where they score 4 points higher than males) (Figure 33). Across income quintiles, the disparities are stark between children from the poorest and richest families in all domains, with scores consistently higher with income. The difference in average score between children from the richest and poorest households is 11.4 points in the emergent literacy and language domain, 9.3 points in gross and fine motor development, 8.4 points in emergent numeracy, 7.5 points in the executive function domain, 6.0 points in socioemotional development, and 5.0 points in approaches to learning. Nonetheless, even among the most well-off families, there remains significant scope to improve child development outcomes in all six domains.

**Figure 34: Child development outcomes across domains by EYPP participation, 2018**



Source: Authors' estimates using EYPP 2018 data.

82. **The largest disparities in average child development scores are between children who have participated in ECE and those who have not.** Children who are enrolled in ECE have significantly better performance in all domains and their average IDELA scores are between 17 and 26 points higher than the scores for children who do not attend ECE (Figure 34). The differences are particularly large in the three domains where overall average scores are the lowest and which are critical for school readiness: fine motor development, emergent literacy and language, and emergent numeracy. For instance, children who attend the EYPP had an average score of 75.4 in the gross and fine motor development domain, a score of 62 in the emergent literacy and language domain, and a score of 61 in the numeracy domain. On the other hand, among children who did not attend EYPP, the average score stood at 51 for the gross and fine motor development domain, 36 for the emergent literacy and language domain, and 42 for the numeracy domain.

83. **The analyses show that gender, parental education, and household wealth are significant determinants of child development outcomes—findings that are consistent with those based on the MICS data.** Holding all other factors constant, regression analysis shows that if a child is female, then the IDELA score increases by 2.4 points compared to a male child. Parents' education levels also have a positive and statistically significant relationship with scores. If a child's mother has completed secondary education, then the IDELA score on average increases by 9 points compared to a mother who has not completed primary education, holding all other factors constant. Similarly, if a child's father completes secondary education, the IDELA score on average increases 7 points compared to if he had no primary education. Household income has a positive impact on a child's development score—those from the richest quintile score on average 6.3 points higher than those from the poorest quintile. The presence of older children in the family tends to have a negative and significant effect on the score, that is, for every

additional sibling between the ages of 7 and 15 years, the IDELA score reduces by 1.3 points, holding all other factors constant.

84. **As expected, participation in ECE has a significant and positive impact on a child’s development.** Holding other factors constant, a child who attends the EYPP program on average scored 21.4 points higher than a child not attending the program (Table 10). These findings are similar to the MICS which also substantiates that attendance in ECE programs has a significant and positive impact on child development outcomes.

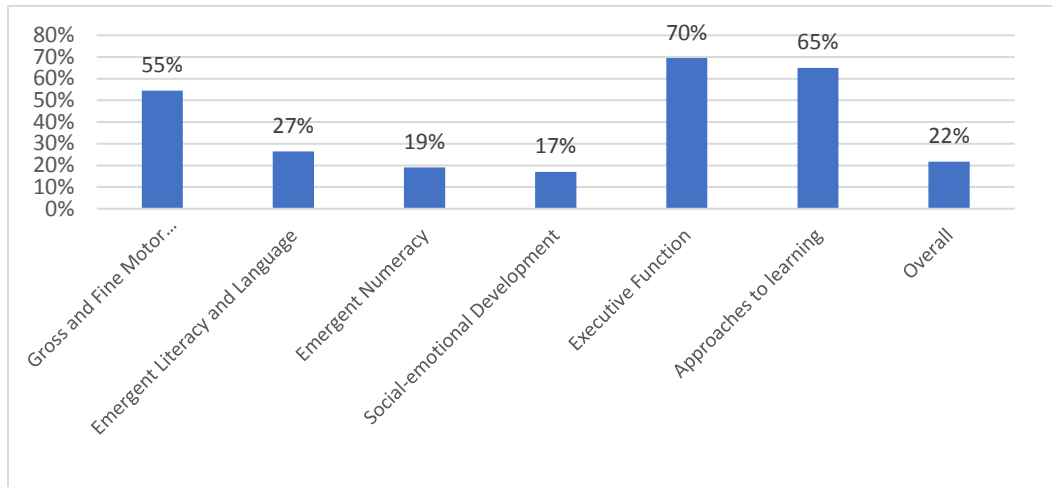
**Table 10: Factors affecting total child development scores**

<b>Dependent variable: Total IDELA scores</b>	<b>IDELA score</b>
The child is a female	2.361*** (3.025)
The child attends ECE	21.397*** (18.627)
The education level of child's mother is primary complete	2.791* (1.875)
The education level of child's mother is secondary complete	4.345*** (3.150)
The education level of child's mother is at least higher secondary complete	8.754*** (3.949)
The education level of child's father is primary complete	1.017 (0.991)
The education level of child's father is secondary complete	3.221*** (3.048)
The education level of child's father is at least higher secondary complete	6.720*** (3.993)
Number of 7- to 15-year-old children in the family	-1.319** (-2.269)
The child's family is in second poorest quintile	0.766 (0.586)
The child's family is in third poorest quintile	2.458* (1.861)
The child's family is in fourth poorest quintile	0.121 (0.083)
The child's family is in the richest quintile	6.276*** (4.403)
Constant	33.900*** (18.688)
Observations	1,798
R-squared	0.277

*Note:* Estimates are based on ordinary least square (OLS) regression analysis, that is, the dummy variable compares to the reference group; positive regression coefficient means that IDELA score is higher for the dummy variable affiliation than for the reference group; a negative regression coefficient means that score is lower than the reference group, holding all other factors constant. Robust t-statistics in parentheses; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .



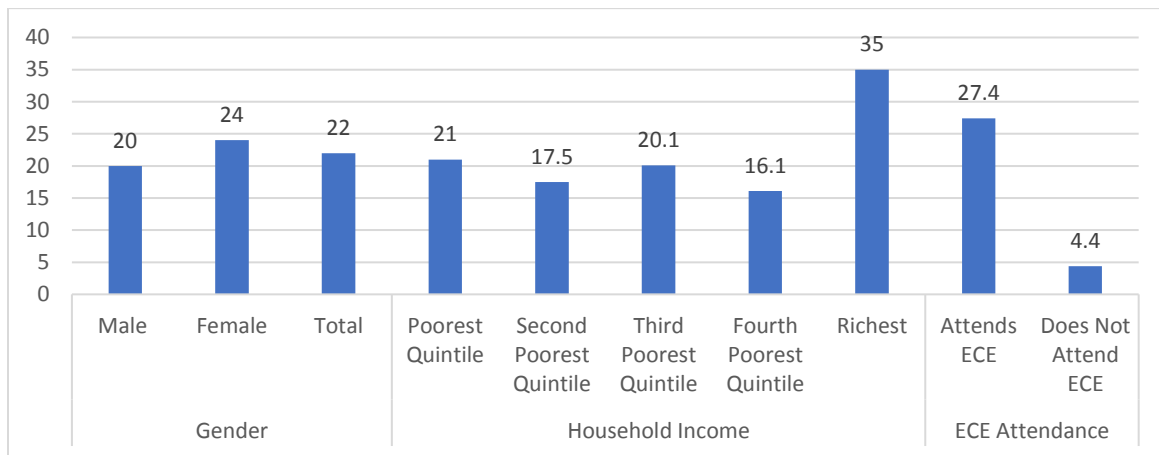
**Figure 35: Share of children developmentally on track across IDELA domains (%)**



Source: Authors' estimates using EYPP 2018 data.

85. Using an IDELA score of 75 as the benchmark,<sup>34</sup> only around 22 percent of the surveyed 5-year-olds are found to be developmentally on track (Figure 35). This figure is much lower than the corresponding figure for children aged 3–4 years based on the MICS data (65 percent) and suggests that school readiness is a major issue of concern for a large percentage of children entering primary schools. In particular, a high percentage of children are not meeting developmental targets in the domains of emergent literacy and language, numeracy, and socioemotional development. Adequate development in these domains is critically important for cognitive development and for attaining advanced learning skills.

**Figure 36: Share of children developmentally on track by socioeconomic factors and ECE attendance (%)**



Source: Authors' estimates using EYPP 2018 data.

<sup>34</sup> Although there are no official benchmarks for what constitutes proficiency on a given IDELA item, Save the Children informally uses a score of 75 percent on the overall assessment and within individual domains as an indication of mastery or developmentally on track.

86. Among the children included in the impact evaluation, female children, children from the richest quintile, and ECE participants are more likely to be developmentally on track (Figure 36). These findings are similar to those for 3–4-year-olds based on the MICS data. The difference is particularly large between ECE participants and nonparticipants: while around 27 percent of children enrolled in ECE programs are developmentally on track, the corresponding figure for ECE nonparticipants is only 4 percent.

87. The factors significantly associated with the probability of a child being developmentally on track are the same as the significant determinants of child development outcomes discussed earlier—gender, parental education, household wealth, and ECE participation (Table 11). Holding all other factors constant, a female child is 16 percent more likely to be developmentally on track compared to a male child. If a mother has a secondary education, then the child is 46 percent more likely to be developmentally on track compared to a child of a mother with no or below primary education. This probability rises to 66 percent if the mother completes higher secondary education. Similarly, children from the richest quintile are 33 percent more likely to be developmentally on track compared to those from the poorest quintile. And finally, children participating in ECE are significantly more likely to be developmentally on track than nonparticipants, holding all other factors constant.

**Table 11: Factors affecting total child development scores**

<b>Dependent variable: Child is developmentally on track = 1</b>	
<b>Variables</b>	
The child is a female	0.164** (2.353)
The child attends ECE	1.173*** (10.888)
The education level of child's mother is primary complete	0.273 (1.471)
The education level of child's mother is secondary complete	0.457*** (2.802)
The education level of child's mother is at least higher secondary complete	0.655*** (3.117)
The education level of child's father is primary complete	-0.206** (-2.211)
The education level of child's father is secondary complete	0.106 (1.064)
The education level of child's father is at least higher secondary complete	0.243 (1.473)
Number of 7- to 15-year-old children in the family	-0.135** (-2.161)
The child's family is in second poorest quintile	-0.091 (-0.806)
The child's family is in third poorest quintile	0.041 (0.337)

Dependent variable: Child is developmentally on track = 1	
Variables	
The child's family is in fourth poorest quintile	-0.221* (-1.705)
The child's family is in the richest quintile	0.331*** (3.020)
Constant	-2.209*** (-10.722)
Observations	1,798

Note: Estimates are shown in marginal effects (that is, changes in outcome probability, that is, whether a child is developmentally on track, with a unit of change of the covariate while keeping all other variables constant.

Robust z-statistics in parentheses; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### 3.4 Policy Options

88. **ECE centers need to be well resourced with quality TLMs to provide quality services.** The provision of teaching, learning, and play materials remains inadequate, especially in preprimary classes of government schools, which may impede the implementation of quality ECE. MoPME needs to ensure that the budget allocated for teaching, learning, and play materials in preprimary classes is effectively allocated and utilized by the government schools. The government may also consider support to low-resourced private and religious ECD centers in areas where government ECE provision is limited, either by directly providing them with materials or by providing funds to acquire materials. Tapping into NGO models that use low-cost and sustainable play materials and mobilizing community in-kind donations are also good means for providing supplementary materials for nongovernment ECE centers. However, a proper monitoring system needs to be in place to ensure effective utilization of teaching-learning and play materials at the schools.

89. **Bangladesh needs to improve its ECE teaching strength, in terms of numbers, qualifications, and professional development opportunities.** There is a need to urgently complete the recruitment of preprimary teachers in government schools and reduce the average STR in these classrooms. In light of plans to expand PPE to two years, MoPME needs to conduct a teacher needs assessment for the additional year of ECE. There is an even greater need for enhancing the capacity of teachers in terms of academic qualifications and ECE-focused training. With the new teacher recruitment policy in place, the minimum qualification for female preprimary teachers has been raised to bachelor's degree. While this policy reform is expected to result in the recruitment of preprimary teachers with better academic credentials, there is nonetheless a large pool of preprimary teachers with only a higher secondary degree or below. To upgrade their teaching skills, MoPME and the DPE must expedite its teacher training plan for existing PPE teachers and new entrants and provide them with appropriate refresher training in the future. There is also a need to develop pre-service training programs<sup>35</sup> for potential PPE teachers so that the quality of the incoming preschool workforce can be improved. Pre-service

<sup>35</sup> Currently, there are no provisions for diploma/certificate programs in ECD/ECE for teachers in Bangladesh.

diploma and skills training programs can be offered in partnerships with universities and/or technical training institutions.

90. **The capacity of government training institutions needs to be enhanced.** This would require upgrading the teacher training centers, such as the PTIs and URCs, to make them well-resourced with an adequate number of qualified instructors and appropriate facilities. An immediate requirement would be to complete a needs assessment of training centers, considering the expansion of PPE planned for the coming years. The acute shortage of instructors could be addressed in the short run through contractual deployment of trainers while also focusing on building a pool of permanent trainers to deliver different types of training in the mid to long run.

91. **A robust M&E system is needed to monitor and evaluate the performance of the ECE system in compliance with standards.** First, there is a need to improve data collection on ECE provision and child development outcomes at the school and national levels. At the school level, there is a need to ensure that principals and teachers are monitoring child learning and development outcomes and that this is communicated to parents. Monitoring should ideally also include support and specific feedback to teachers and centers to help them improve. This could be facilitated by engaging school management committees in the process. At the national level, the annual school census would need to be reviewed and improved to enable the collection of more comprehensive data on the quality of ECE inputs in government and nongovernment centers. Large-scale surveys, which track child development outcomes, could also be implemented every two to three years to help the government understand the performance of the ECE system. Second, there is a need for MoPME and the DPE to develop clear guidelines on the roles and responsibilities of staff involved in the PPE monitoring process. It will also be critical to improve the monitoring capacity of staff by providing adequate human resources and trainings. Third, there is a need to ensure that M&E data are properly utilized and that the feedback loop is complete—from schools to district officers to high-level officials and back to schools, parents, and communities. This will require public dissemination of school and child performance data to encourage community engagement and accountability of schools and district education offices.

92. **A quality assurance mechanism that covers both public and private provision of ECE needs to be developed and implemented.** Currently, there is little information on the quality of ECE provision in the private sector. For centers providing ECE, the government may establish a national accreditation system to ensure compliance with quality standards in preschools.

## Chapter 4: Governance and Management of ECE in Bangladesh

### 4.1 Current ECE Policies and Government Programs

93. **During the past decade, Bangladesh has developed a number of important policies related to ECE.** These policies have evolved over the past decade to reflect the growing recognition of the importance of PPE and have attempted to provide a framework to expand preprimary enrollment while also ensuring quality and equity. Key policies and operational documents include the National Children Policy 2011 (NCP 2011) and the Comprehensive Policy for Early Child Care and Development 2013 (CPECCD 2013) prepared by MoWCA, the NEP 2010 prepared by Ministry of Education (MoE), and the Operational Framework for Preprimary Education prepared by MoPME.

94. **The Operational Framework for Preprimary Education established national standards for the various service providers of PPE in Bangladesh.** MoPME issued the Operational Framework in March 2008 after consultation with stakeholders to address the lack of standards in PPE. At that point, a variety of preprimary programs existed, including those run by NGOs and informal ‘baby classes’ at primary schools to serve the younger siblings of primary education students, but there were no policies or structures to guide these programs. Since it was established in 2008, the Operational Framework has not been officially updated or superseded by a policy intended to replace it.

95. **The Operational Framework established MoPME as the lead ministry for PPE.** As per the framework, MoPME is responsible for developing the PPE policy framework, facilitating coordination among stakeholders and service providers, setting standards, mobilizing resources, and ensuring that children’s rights are protected. The document also establishes the short-term goal of PPE access for all 5-year-olds, with priority given to children from marginalized population groups and vulnerable backgrounds, and the long-term goal of access for all 3- to 5-year-olds.

96. **However, five years after the Operational Framework was approved, MoWCA issued the CPECCD, which gives MoWCA the lead coordination and supervision role for all early childhood activities.** The contents of this policy as well as the lack of clarity on MoPME’s and MoWCA’s respective roles and relationships are discussed later in this chapter.

97. **The Operational Framework for Pre-Primary Education also lays out developmental milestones for the major development domains, a curricular framework including learning objectives, and content, teacher training, and service delivery standards.** The framework affirms that the agency responsible for developing the PPE curriculum and learning materials is the NCTB of MoE. It also states that a core group of master teacher trainers is to be developed by education institutions active in ECD and that teacher trainers should have some education in child development and preferably hold a bachelor’s degree in preprimary or primary education. Recognizing that many recruited teachers will be from rural areas and have low educational attainment, they are to receive training on child care, child development, and developing learning

materials. An initial training period should be followed by regular refresher training. No targets are specified for numbers of teachers to be trained. Details on the duration, location, and specific content of the training are not offered. Preprimary class hours are to be expanded to two to three hours per day, for five to six days per week. This is roughly in accordance with a minimum international standard of at least 15 hours per week (Neuman and Devercelli 2013). Class sizes should ideally be 20 to 30 students with two teachers, also in line with international standards for child-teacher ratios (Neuman and Devercelli 2013).

98. **A Center Management Committee (CMC) is to manage each preprimary school, under a primary school or an NGO.** The Operational Framework states that a CMC will comprise seven to nine members, who will be under the management of the existing primary school (if it is attached to a primary school) or a local NGO. The CMC Chairperson will be a head teacher from the primary school, one representative will be from a local NGO, two from existing school management committees, two parents, one preprimary teacher, and two other optional members.

99. **Monitoring and supervision mechanisms for preprimary programs are not specified in the Operational Framework.** The framework states that supervision and monitoring mechanisms are to be “developed cooperatively with the service-providing NGOs.” However, in practice, supervision objectives and procedures largely follow those of the overall GPS monitoring system which involves the primary unit at the DPE, the upazila education offices, and the URCs.

100. **NEP 2010 states that one year of PPE is to be established, with the long-term goal of two years of preprimary.** The policy recognizes PPE as a core part of the country’s education system. Preprimary is meant to prepare children for formal education and inspire them to be excited about learning. Four strategies are described: (a) teaching will be delivered through various modalities, such as games, songs, and simple educational materials; (b) teaching will be characterized by love and care while ensuring children’s safety; (c) posts for teachers and number of classrooms will be expanded at every school; and (d) provision will include programs of religious institutions currently overseen by the Ministry of Religious Affairs which combine religious instruction with modern education. No other details on service providers to be engaged in the expansion are mentioned. The policy states that this is a long-term initiative that will be implemented in phases; no target date for implementation is mentioned. The NEP does not appear to contradict the Operational Framework, issued two years earlier, and the two policies can be seen as complementary.

101. **The National Children Policy 2011 ensures access to education for children regardless of gender, special needs, religious, or ethnicity.** This MoWCA policy, which seeks to ensure children’s rights from birth to age 18, calls for PPE to be strengthened and expanded. Children with disabilities should be mainstreamed in education if possible and special education programs should be established if mainstreaming is not possible. Treatment and rehabilitation programs should be set up for children with disabilities, and educational services and facilities should be accessible to children regardless of disability status.

102. **A series of PEDPs managed by DPE, the implementing arm of MoPME, have addressed the issue of PPE expansion.** While PEDP1 (1997–2003) did not include PPE, PEDP2 (2004–2011) included a small-scale pilot preprimary program run by NGOs and administered by MoPME. PEDP3 (2012–2017) and the ongoing PEDP4 (2018–2023) both cover PPE as well as primary education and are described in detail in the following paragraphs.

103. **PEDP3 committed to provide one year of PPE before Grade 1 entry and laid out plans for expansion.**<sup>36</sup> While PEDP2 recognized the need for the government to engage in preprimary education, PEDP3 focused more on the operational aspects of how to engage in the subsector. The strategy was to gradually expand preprimary enrollment by offering preprimary programs at all GPSs and engaging NGOs and private sectors as service providers in areas where GPSs did not exist or where GPSs did not have enough space to run PPE classes. NGOs were also engaged in teacher training. The expansion was to take place according to an access-quality-equity agenda. Other elements of the system that needed to be addressed included teacher training, supervision and monitoring, management and information systems, and reporting. PEDP3 was revised in 2015 and included the objective of making preprimary classes operational in all primary schools. The plan states that the future goals of preprimary expansion are to focus on a minimum standard of quality in all schools (in particular NNGPSs) and on areas with the greatest education disparities. NNGPSs are supposed to have dedicated preprimary classes, trained teachers, and learning materials; use learning assessment tools; and follow child-teacher ratio standards. The government-NGO collaboration guidelines were also revised.

104. **Launched in July 2018, PEDP4 aims to provide quality preprimary and primary education through an inclusive, efficient, and equitable education system.** PEDP4 covers three key components: quality; access and participation; and management, governance, and finance. The goals for PPE are improving school readiness and enabling the smooth transition of 5-year-old children to primary school. While PEDP3 focused largely on expansion, PEDP4's orientation is toward improving quality. PEDP4 preprimary interventions focus on improving the physical environment, reducing the STR, strengthening teacher capacity, and delivering play and learning materials so that all government schools offer PPE in accordance with the established standards. Activities to achieve these goals include constructing new classrooms, recruitment and induction training for teachers from schools exceeding established STRs, timely provision of learning materials required to deliver the curriculum, and provision of funds to schools to procure additional learning and play materials. Supervision and M&E are to be strengthened through

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<sup>36</sup> PEDP3 identified eight key elements to promote quality and establish graded standards to achieve quality. Quality elements are physical environment, learning environment, staffing, monitoring and supervision, parent and community involvement, training and professional development, management, and administrative. Standards related to these elements are on a gradation, encompassing Level 1: minimum/basic, Level 2: desired/medium, and Level 3: preferred/exemplary. The graded standards recognize that quality takes time to achieve and that what is realistic to achieve varies from school to school based on its capacities and resources. PEDP3 defined an upazila (subdistricts) or thana, in the case of cities, as the unit of PPE expansion.

capacity building of head teachers, UEOs, and district primary education officers and revision of the APSC format to collect adequate data on PPE.

105. **On the other hand, the CPECCD, adopted by MoWCA in 2013, emphasizes the need for a more multidisciplinary and coordinated approach to ECD.** It recognizes a ‘critical need’ to establish coordination mechanisms among service providers in health, education, social protection, and child protection for young children to avoid duplication and wastage of resources. It recognizes the importance of integrating and converging these services and bringing together all relevant ministries, organizations, and international development actors under one platform. MoWCA states that it took the lead “to frame a coordinated policy with the objective of creating a common understanding and expectations among the organizations involved in Early Child Care and Development (ECCD) activities and to further facilitate collaboration, cooperation, and coordination among all stakeholders” (as cited in CPECCD, page 3). The policy document states that the plan was approved following a participatory process involving relevant government, NGO, development partners, and private sector stakeholders.

106. **The CPECCD takes a holistic approach to child development and also emphasizes access to inclusive services for disadvantaged children.** The policy covers the period from conception to age 8 and thus includes the target age group for ECE as well. It seeks to ensure that all children realize their rights of survival, safety, care, development, and education. Its strategic principles include holistic development; continuity of care and services; parenting; engagement and ownership of the community; age and cultural appropriateness; inclusion; equality, equity, and mainstreaming in gender, and a life cycle approach. For the 3–6 age group, among other strategies, the policy calls for improving the quality of PPE and creating opportunities for all children to participate in PPE. A section on special needs calls for services and infrastructure for children with special needs. The policy also calls for using multilingual education with a preference for mother tongue for children from linguistic minority groups. It outlines the duties and responsibilities of relevant stakeholders, which are described in the next section of this chapter.

107. **Although the CPECCD states that it was prepared in alignment with the Operational Framework and other policy documents, it seems to contradict the Operational Framework’s establishment of MoPME as the lead coordination body for preprimary activities.** The CPECCD outlines the duties and responsibilities of various stakeholders. It describes MoWCA’s responsibility for “total coordination and observation of all ECCD activities under this policy,” which would seem to remove MoPME as lead coordination actor for PPE as established in the Operational Framework, although this is never made explicit. It describes MoPME’s role as provider of PPE, but reserves the authority for leadership and coordination with MoWCA.

108. **In practice, MoPME is the lead ministry for all aspects of PPE, not just the lead provider of PPE.** The ministries seem to operate in parallel rather than in overlapping mandates—MoWCA mainly focuses on health, nutrition, and parenting, while MoPME focuses on education, including preprimary. MoPME informs MoWCA of the work it is undertaking in ECE; however, interviews suggest that coordination between the two ministries remains weak.



109. **There is no apparent contradiction between MoWCA’s and MoPME’s policies related to education, largely because there are few specifics in MoWCA’s policies.** The latter emphasizes inclusive services (in all sectors, not just education), which is also a priority for MoPME. The largest difference may lie in MoWCA’s emphasis on coordinated and comprehensive services (again, in all sectors, not just education), which is not prominent in education sector policies.

110. **The current Early Learning for Child Development Project (ELCDP-3) under MoWCA aims to make the CPECCD operational at the national and subnational levels.** The project is being implemented by the Bangladesh Shishu Academy (BSA), MoWCA, and UNICEF from January 2018 to December 2020. Specific goals include strengthening coordination mechanisms for effective policy implementation and strengthening institutional capacities of stakeholders. The project document states that the plan assumes that a dedicated team at BSA/MoWCA will be available to coordinate and follow up with all stakeholders and that all stakeholders will have focal persons actively and continuously participating in implementation at the national and subnational levels. It calls for establishing committees at the national and subnational levels, identifying one focal person and an alternate focal person at each of the 15 relevant ministries and developing and implementing an orientation package for committee members and focal persons. It also calls for ministries, districts, and upazilas to develop costed implementation plans and implementation status reports.

## 4.2 Key Issues in Governance and Management of ECE

### 4.2.1 Governance and Management Structure in ECE

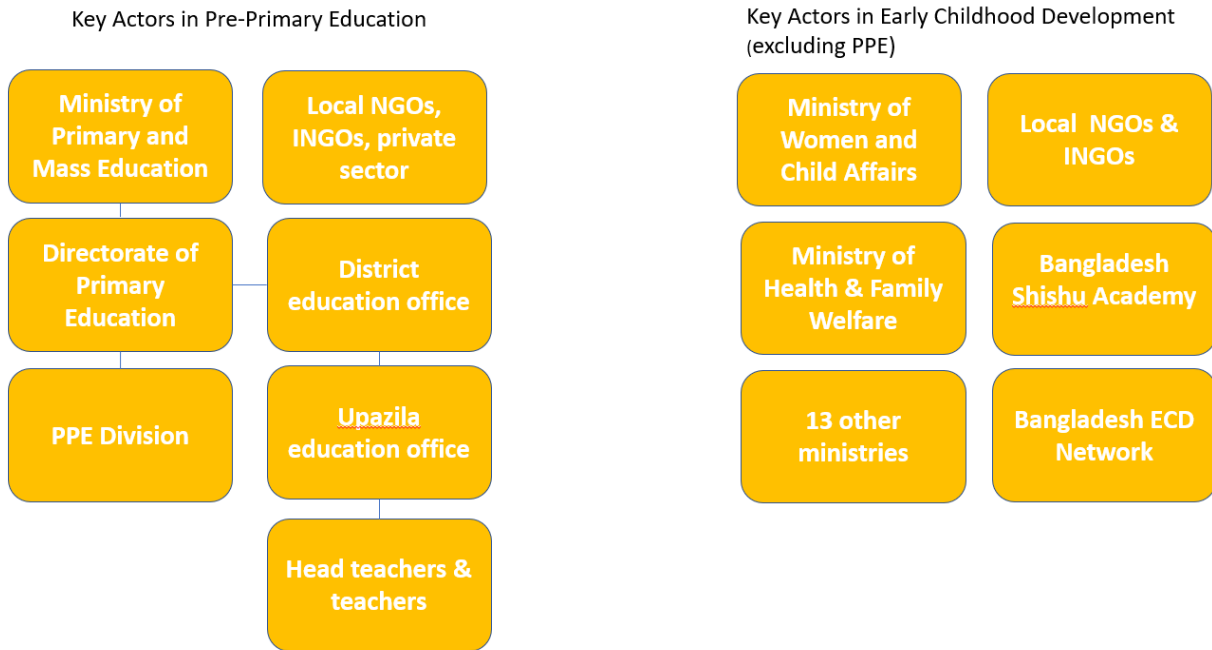
111. **A large number of government actors are responsible for ECD in Bangladesh, but there is little coordination between actors engaged in PPE and those in other sectors.** The term ECD encompasses ECE but is much broader and typically includes the sectors of health, nutrition, child protection, and social protection. The CPECCD uses the term ECCD (interchangeable with ECD, the preferred term of many in the field) to cover the period from conception through age 8. The policy lists 15 government ministries as having responsibilities for ECCD,<sup>37</sup> but there are no budget coordination mechanisms between these ministries. Figure 37 shows the key actors in PPE and ECD in Bangladesh, reflecting the current reality rather than the roles laid out in CPECCD. The figure is not a comprehensive mapping, but it clearly shows that there is little to no overlap or coordination in practice between the PPE actors and the rest of the major ECD actors.

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<sup>37</sup> Technical Assistance Project Proposal of Early Learning for Child Development Project, 3rd Phase, Government of People’s Republic of Bangladesh.

The 15 ministries are Women and Children Affairs; Health and Family Welfare; Primary and Mass Education; Education; Cultural Affairs; Social Welfare; Local Government, Rural Development, and Cooperatives; Chittagong Hill Tracts Affairs; Religious Affairs; Food; Disaster Management and Relief; Information; Youth and Sports; Labour and Employment; and Home Affairs.

Figure 37: Key actors in Preprimary and ECCD in Bangladesh



112. Among these various entities, MoWCA and MoPME are the two main ministries involved in ECD provision.

113. MoWCA is the lead coordination and supervision body for ECD for children aged 0–8 years in the country according to the CPECCD. It is responsible for coordinating between ministries, agencies, and international actors. A National ECCD Coordination Committee has been established to coordinate and implement activities, with the Minister of MoWCA as committee head. The minister is to ensure that ECCD is on the agenda of any meeting of the National Council of Women and Children, which is chaired by the Prime Minister. A National ECCD Technical Committee comprising experienced ECCD experts provides technical support to MoWCA and includes NGO partners. Each ministry with responsibility for ECCD (described in the following paragraph) sends a quarterly progress report to MoWCA.

114. The BSA, an autonomous organization under MoWCA, is responsible for ensuring quality standards and implementing ECCD programs under the purview of MoWCA, although in practice none of these responsibilities include any PPE engagements. BSA is currently delivering ECD activities in 16 upazilas, but these activities focus on health and nutrition and do not include PPE activities. While the CPECCD states that integrated services are a priority, at present neither MoWCA nor BSA engages with MoPME to offer integrated services to children through preprimary programs. In practice, MoPME is the lead ministry for PPE, despite the CPECCD stating that MoWCA is the lead ministry for all early childhood activities.

115. MoPME is the apex body for all aspects of preprimary, primary, and nonformal education. The ministry leads policy formulation and manages the PPE sector through a directorate—the

DPE—which is responsible for the administration and quality assurance of one year of PPE in all government and government-supported schools. Under the ministry, there are attached agencies. The NCTB holds the responsibility for curriculum and textbook development, while the DPE distributes the books to schools. MoPME informs MoWCA of the work it is undertaking in ECE, aligned with the CECCDP 2013. Annexes 5 and 6 show the organogram of PPE provision under the MoE and MoWCA, respectively.

116. **Several other ministries and agencies also have responsibilities for ECCD.** The NCTB within the MoE is responsible for developing the curriculum and learning materials for PPE. The Ministry of Health and Family Welfare is to include ECCD in its services for pregnant women and children. The Ministry of Cultural Affairs is to take up initiatives for the cultural and intellectual development of children, including book publishing. Other ministries bearing responsibilities include the Ministry of Social Welfare, Ministry of Chittagong Hill Tracts Affairs, Ministry of Religious Affairs, Ministry of Food, Ministry of Disaster Management and Relief, Ministry of Information, Ministry of Youth and Sports, Ministry of Labour and Employment, and Ministry of Home Affairs.

117. **Local government bodies under the Ministry of Local Government, Rural Development, and Cooperatives are to play a role in implementing ECCD services, but it is not clear whether this element of the CPECCD has been implemented.** Local government divisions such as district councils, municipalities, Upazila Parishad, and Union Parishad are supposed to integrate ECCD in their programs, with the Union Parishad as a focal point. Local elected women are supposed to form ECCD programs with assistance from service provider organizations and to coordinate local ECCD activities. But the CPECCD policy does not clarify what types of programs are to be formed and whether these will include any preprimary programs.

118. **The NGO sector and international agencies are major actors in ECE.** The CPECCD states that NGOs are to deliver services in consultation with the government, international organizations are to provide capacity building, and the private sector is to support ECCD through corporate social responsibility (CSR). The Bangladesh ECD Network (BEN) is an informal network of 150 stakeholders including government, nongovernment, and international organizations working together to promote children’s holistic development. The network was launched in 2005 and advocates for policy development, builds capacity, and generates and shares knowledge. It was created in response to and in recognition of the large role played by NGOs in the early childhood sector in Bangladesh. Its representatives are required to attend coordination meetings organized by MoWCA. It plays an important role in assisting MoWCA in selecting local NGOs to provide ECD services. BEN has collaborated with the GoB on key initiatives including development of the Preprimary Operational Framework, the curriculum, the teacher training curriculum, and government-NGO collaboration guidelines.

119. **Child daycare centers are another option for early year care and education for some families.** There are a range of center-based providers, including government, private for-profit, private non-profit, and community based. MoWCA runs (and is in the process of establishing)

just under 100 child care centers. BRAC Institute of Education Development offers community-based Play Lab Model centers. However, there are few centers relative to the increasing numbers of mothers of young children in the labor market.<sup>38</sup> Currently, there is no government accredited training program for child caregivers to ensure quality and integration of ECD aspects in these daycares (IFC 2019).

#### 4.2.2 Human Resource Management in Government Provision of ECE

120. **PPE teacher recruitment for GPSs is a long process involving several entities, falling short of a needs-based hiring approach.** The preprimary school teacher recruitment process is led by the DPE in coordination with the district primary education office (DPEO) and other relevant divisions. As per the DPE directive, the DPEOs conduct a needs assessment of teachers for government schools in each subdistrict (upazila). A consolidated teacher needs assessment is then prepared by the DPE. However, regardless of the total teacher demand following the report, the DPE is only able to advertise posts against the annual teacher recruitment target, which is predetermined based on the ongoing fiscal year budget. Against the available posts, eligible candidates appear for a two-stage testing, involving first a written exam followed by an interview for those passing the written exam. The interview committee—headed by the Deputy Commissioner and the district primary education officer as member secretary and two other members appointed by government—assesses the candidates based on their academic qualifications, presentation skills, personality, general knowledge, and other qualities sought among teachers. The final decision for hiring and deployment is then taken by the central committee at the DPE.<sup>39</sup> This long process leads to preprimary teacher shortages in many schools. The DPE is currently in the process of recruiting 26,000 additional teachers to support its one-year PPE program.

121. **The teacher recruitment and professional development processes raise concerns about the quality of preschool education in government schools.** Until 2018, all male primary school teachers, including PPE teachers, were required to have at least a bachelor's degree and all female teachers were required to have at least a higher secondary degree (Grade 12/equivalent) following the DPE Teacher Recruitment Plan 2013. The lower qualification requirement for female teachers was part of the government's efforts to attract females into teaching and to boost girls' education (Rahman, T., Nakata, S., Rahman, M and Nomura, S., 2017). While this led to a significant increase in female primary school teachers, concerns remained regarding the implications for the quality of teaching in schools. As a result, in 2019, MoPME introduced revisions to the recruitment guidelines which changed the required minimum academic qualifications for all primary school teachers to at least a bachelor's degree.<sup>40</sup> In addition to having relatively low educational qualifications, most recruited teachers do not have specializations in PPE and receive only a brief

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<sup>38</sup> "Lack of Daycare Centres Frustrates Working Women." *The Daily Star*. March 8, 2017. <https://www.thedailystar.net/business/lack-daycare-centres-frustrates-working-women-1372447>.

<sup>39</sup> The central committee for the recruitment of primary school teacher is headed by Director General of the DPE while a third-party firm oversees the overall management, coordination, and quality assurance of the recruitment process.

<sup>40</sup> This announcement was published in the government's gazette in September 2019.

induction training of around two weeks. Teachers without a sound knowledge of holistic child development may not be able to facilitate a play-based, developmentally appropriate program and properly implement the curriculum.

122. **Chronic shortages in the availability of trainers of teachers further impede effective and timely training of preschool teachers.** The PTIs and URCs are reported to suffer from a chronic shortage of instructors, which has led to delays in the implementation of preprimary teacher training and resulted in a large pool of untrained teachers. A review conducted by DPE found that the current vacancy rate in the PTIs was more than one-third of the sanctioned posts (DPE 2019). Even after filling these posts, the PTIs would not be capable of completing the training for preprimary and primary teachers, as additional instructors and double shift operations would be needed to deliver the training. Moreover, the assessment found that facilities (including furniture, teaching facilities, and information and communication technology [ICT]) were in short supply at the PTIs.

#### 4.2.3 Quality Assurance, Monitoring, and Evaluation

123. **The GoB has established a number of quality standards related to infrastructure and ECE service delivery.** These include standards governing school construction (for example structural soundness) and other facilities (such as potable water and toilets), teacher qualifications, and class size. Key documents describing standards include the Operational Framework for Preprimary Education, Infrastructural Guideline for PEDP4, PEDP4 Program Document, and the Teacher Recruitment Plan 2019. Box 3 summarizes the key standards for public preprimary programs.

##### Box 3: Key Preprimary quality standards in Bangladesh

- **Teacher qualifications:** Minimum qualification for teachers is a tertiary degree. Certificate or diploma in education (not focused on ECE) must be completed within three years of hiring for a permanent position.
- **Curriculum:** Play-based curriculum covering multiple developmental domains.
- **Class size:** 20–30 students with two teachers.
- **Class hours:** 2–3 hours per day, 5–6 days per week.
- **Area:** Minimum 250 square feet of indoor space.
- **Others:** Potable water, hygienic facilities, and electricity and infrastructure standards same as primary schools.

*Source:* Infrastructural Guideline for PEDP4 2019, PEDP4 Program Document 2018, Teacher Recruitment Plan 2019; and Operational Framework for Pre-Primary Education 2008.

124. **Another set of key quality standards adopted by the GoB is the ELDS.** MoWCA and MoPME adopted the ELDS in 2016 and since then all other relevant ministries have also adopted these standards. The ELDS outline the concepts and skills young children should develop at various developmental stages (see Box 4).

#### **Box 4: Early Learning Development Standards (ELDS)**

The ELDS are intended to provide guidance to families, ECD caregivers/teachers, and administrators on what young children (typically in the 0–6 age group) are expected to know and do at various stages of development. Numerous countries have developed and adopted their own ELDS in accordance with established concepts about child development and the country's goals and values. Bangladesh's ELDS outline the competencies that young children should possess at various ages and stages, from birth to 96 months. They propose development indicators for children (such as behaviors and skills they should exhibit) and strategies for caregivers to encourage these behaviors. They cover four domains: physical and motor, social and emotional, language and communication, and cognitive development. There are several subdomains within each domain. The content of the Bangladesh ELDS was validated under the GoB-supported Early Learning for Child Development Project (ELCDP-2) in 2013. These ELDS have been endorsed by 16 ministries. They have been used by the NCTB in the development of the national preprimary curriculum and by a number of NGOs to inform the development of their preprimary teacher learning packages. See Annex 4 for details.

#### **125. MoPME endorsed an official preprimary curriculum for use in public schools in 2013.**

The curriculum is evidenced based, child centered, and play based; rooted in the local culture and tradition; and encourages family involvement. The government has an action plan for curriculum revision for preprimary to Grade 5 to ensure the vertical alignment of the curricula across grades. The new curriculum is expected to be rolled out in 2021.

**126. As monitoring and compliance mechanisms for ECE centers are weak or not consistently enforced, the level of compliance with standards cannot be determined.** For public centers, UEOs or area education officers are supposed to conduct periodic monitoring visits but these visits may be rare or not occur at all. Inspections may be incidental to officers' visits to the primary programs housed at the same facility rather than focused on the preprimary programs. Within upazila education offices, area education offices, and public schools themselves, the attention may be focused on the quality of the primary programs (Islam, Das, and Roy 2016).

**127. There is limited monitoring of the quality of ECE programs run by NGOs.** While NGOs need to register to operate ECE centers, it is not clear if they need to obtain a separate registration for each individual center they operate. Some NGOs have their own monitoring mechanisms—BRAC, for example, has its own quality assurance mechanisms and publishes an annual report on quality, which covers its preprimary school program. But because there is no systematic monitoring mechanism for NGO-run ECE centers by the government, it is not possible to estimate key ECE statistics such as the number of NGO-run ECE centers with qualified teachers, the number of centers that implement the curriculum properly, and the number of centers that adhere to the prescribed child-teacher ratios.

**128. The GoB collects self-reported administrative data on public, religious, and NGO-run and community-based ECE centers, but in a limited manner.** The DPE conducts the APSC, which includes a section on PPE that collects school-level data on some limited aspects of the sector, such as whether or not the school offers PPE, student enrollment, and number of PPE



teachers. These data provide information on retention trends and are used to make primary enrollment projections.

129. **Data on child development outcomes are not collected.** Some countries conduct school readiness assessments of children who have completed PPE. Such assessments generally focus on holistic child development, covering cognitive, language, physical, and socioemotional outcomes. The GoB does not collect data on child development outcomes of preschool-age children.

#### 4.3 SABER-ECD Analysis of Bangladesh's ECE System

















130. **The World Bank's SABER-ECD initiative proposes a framework for analyzing the quality of a country's policies and provisions for ECE.** The SABER-ECD framework covers all sectors involved in ECD: health, education, social protection, and child protection. The main pillars of this framework are three policy goals (or objectives) for an effective ECE system: (a) Establishing an Enabling Environment, (b) Monitoring and Assuring Quality, and (c) Implementing Widely (World Bank 2013). Each policy goal is associated with a set of policy levers, which are actions that a government can take to achieve the goal. The first goal refers to the existence of an adequate legal and regulatory framework to support ECE. The second refers to the development of standards for ECE services, the monitoring of compliance with standards, and the implementation of systems to monitor outcomes. The third refers to the coverage and scope of ECE programs offered in country. Within this framework, there are four stages in the policy development continuum: (a) Latent (least developed), (b) Emerging, (c) Established, and (d) Advanced (most developed). It should be noted that the SABER analysis looks primarily at the existence of policies, not their implementation.

##### **Box 4: SABER-ECD Initiative**

Building upon their Education Strategy 2020, the World Bank's Human Development Network launched SABER to help countries examine their education policies systematically. Using this approach, specific education policy domains have been identified to cover the span of education systems from early childhood to entry into the workforce. SABER-ECD is intended to serve as a diagnostic tool for helping policy makers identify gaps and areas in need of policy attention to promote healthy and robust development for all children. Although it is an education sector-led initiative, SABER-ECD is premised on a holistic view of early childhood development that sees early childhood development as taking place across several interlinked domains that span multiple sectors. Accordingly, the diagnostic tool looks at policies and provisions across various sectors which are relevant to early childhood development including health, education, social protection, and child protection. Since SABER-ECD was launched in 2010, more than 50 countries have participated in the initiative. SABER-ECD has allowed World Bank staff and policy makers in these countries to view their respective ECD systems through a comparative lens and identify policy options for strengthening ECD at the national and subnational levels. More information on SABER-ECD may be found at <http://saber.worldbank.org/index.cfm>.

131. The results of a SABER-ECD analysis focused on Bangladesh’s educator sector show mixed progress.<sup>41</sup> Table 12 shows the level of development of Bangladesh’s ECE system using a modified SABER-ECD analytical framework.

**Table 12: Analyzing the development of Bangladesh’s ECE policies**

ECD policy goal	Level of development	Policy lever	Level of development	
<b>Establishing an Enabling Environment</b>	 <i>Established</i>	Legal framework		
		Inter-sectoral coordination		
		Finance		
<b>Implementing Widely</b>	 <i>Emerging</i>	Scope of programs		
		Coverage		
		Equity		
<b>Monitoring and Assuring Quality</b>	 <i>Latent</i>	Data availability		
		Quality standards		
		Compliance with standards		
<b>Legend:</b>	<i>Latent</i> 	<i>Emerging</i> 	<i>Established</i> 	<i>Advanced</i> 

132. The system fares well on the **Establishing an Enabling Environment** policy goal, with a rating of **Established**. The Established benchmark is achieved as a result of the existence of key legal provisions, coordination mechanisms, and a multisectoral strategy for ECE. Figure 38 depicts how the system fares in various components of this policy goal. In terms of Legal Framework, the country law mandates one year of PPE, and the law protects the rights of children with special needs to access ECE. Multisectoral coordination is (in theory) enabled by the existence of a multisectoral ECD policy, and an institutional anchor to coordinate ECD. Finance is considered Established given the parity in remuneration for primary and preprimary teachers, availability of finance data,<sup>42</sup> established budget criteria,<sup>43</sup> and free tuition for public preprimary programs.<sup>44</sup> Areas of weakness in finance include the lack of a budget coordination process between ministries and a relatively low percentage of the annual education expenditure allocated to the preprimary level.<sup>45</sup>

<sup>41</sup> Due to the ECE focus of this study, a full SABER-ECD analysis covering health and nutrition, education, social protection, and child protection was not conducted. SABER-ECD items pertaining to education were analyzed, while items covering other sectors were excluded. Given these modifications, the results should not be directly compared to full SABER-ECD country analyses.

<sup>42</sup> The GoB reports annual expenditure on public preprimary programs. This is not the case in some countries.

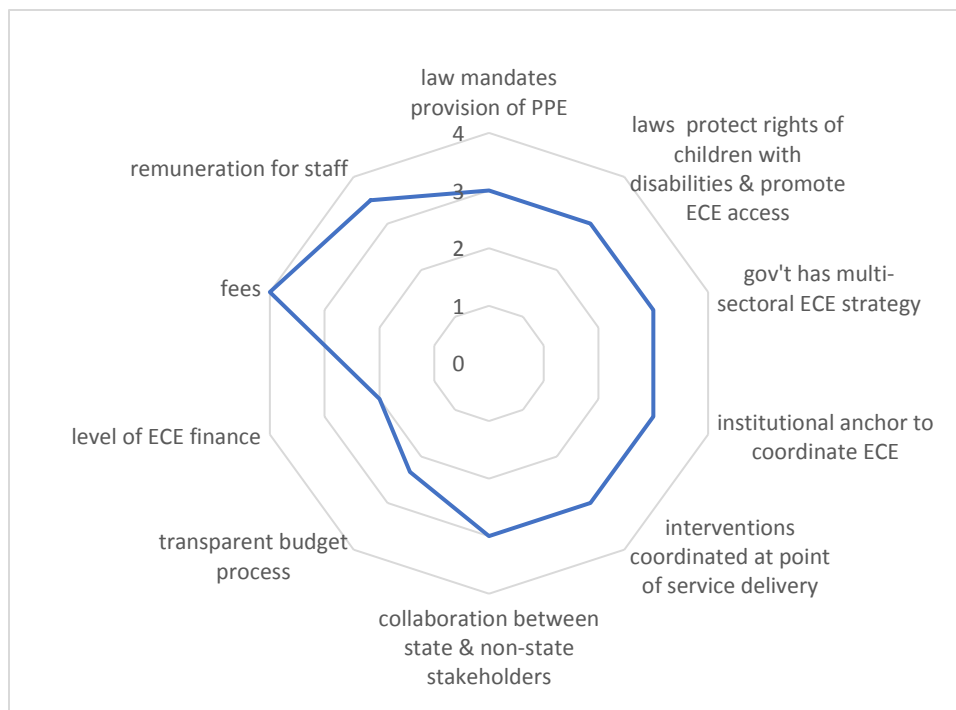
<sup>43</sup> Funding allocation for preprimary programs is based on consideration of number of children enrolled, number of staff positions, historical precedent, physical infrastructure, teacher training, TLMs, equipment, printing, and program monitoring.

<sup>44</sup> Although tuition is free, families may incur costs for uniforms, meals, and transportation.

<sup>45</sup> In 2016–2017, 4.1 percent of the education budget was allocated for preprimary.



**Figure 38: Levels of development of Bangladesh’s ECE policies for an enabling environment**



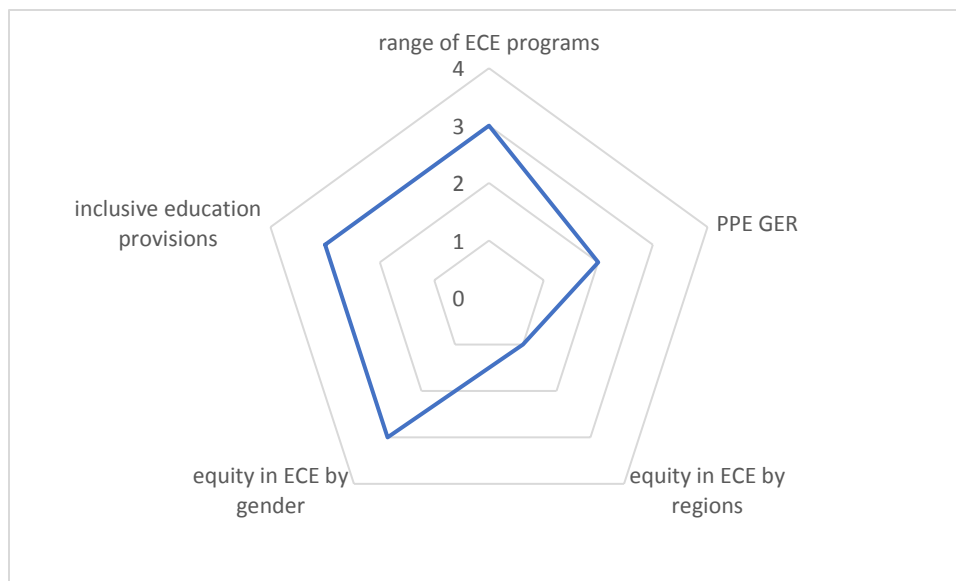
Source: Author’s estimates based on SABER data collected for this study.

Note: 1 = Latent, 2 = Emerging, 3 = Established, and 4 = Advanced.

133. **The Implementing Widely policy goal receives a rating of Emerging.** As shown in Figure 39, the Emerging rating for this policy goal is mainly a consequence of shortcomings in the areas of equity and overall access. More specifically, there are large regional disparities in access to ECE<sup>46</sup> and while the preprimary enrollment rate has increased substantially in recent years, it still remains below 50 percent. However, it should be noted that Bangladesh has achieved gender parity in preprimary enrollment. Furthermore, to promote equity, the GoB provides the preprimary curriculum in multiple languages, encourages mother tongue instruction, and promotes inclusive education as called for by the Education Policy.

<sup>46</sup> For example, according to HIES 2016–17, the division with the highest preschool enrollment rate (Rangpur) has a NER of 45.17 percent, while Mymensingh—the worst performing division—has an NER of only 25.61 percent.

**Figure 39: Levels of development of Bangladesh’s ECE policies for Implementing Widely**

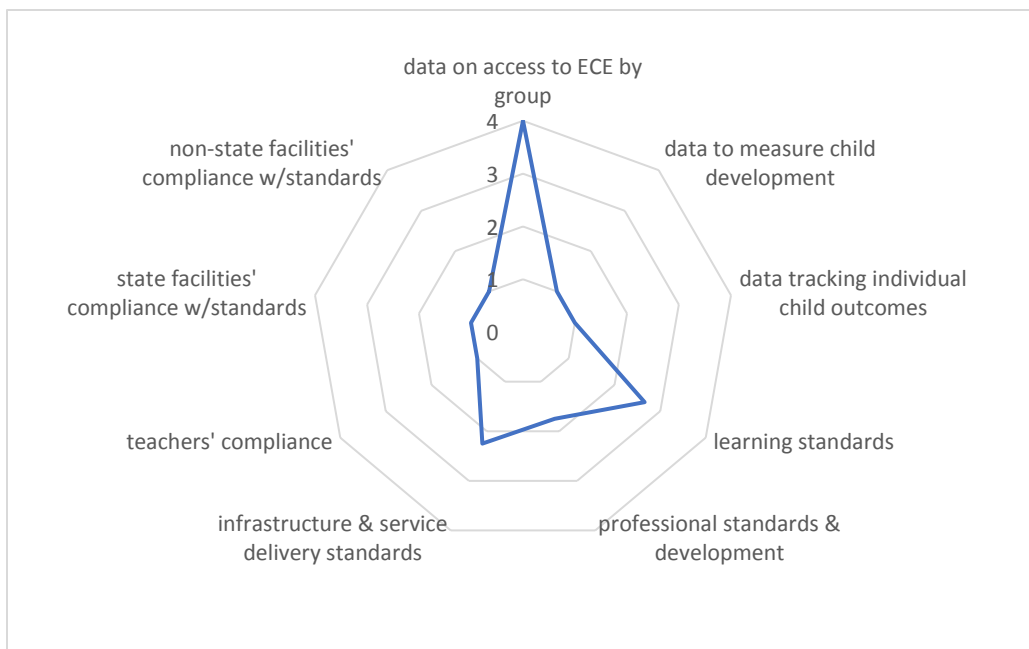


*Source:* Author’s estimates based on SABER data collected for this study.

*Note:* 1 = Latent, 2 = Emerging, 3 = Established, and 4 = Advanced.

134. **The Monitoring and Assuring Quality policy goal is rated Latent.** Figure 40 shows how Bangladesh’s ECE fares in various aspects of this policy goal. The Latent rating for this policy goal is mainly a result of the lack of data on child development outcomes and the absence of information on whether or not ECE centers comply with different service delivery standards. There are a number of standards in place for PPE (such as infrastructure standards, standards for child: teacher ratio, and the requirement of using play-based approaches in the classroom), as well as minimum qualifications for preprimary teachers. However, it is difficult to gauge the level of compliance with existing standards due to the absence of systematic, regular monitoring of ECE delivery and, consequently, the lack of relevant data. The only area of strength related to this policy goal is the availability of administrative data on preprimary enrollment. The GoB collects background characteristics on enrolled children such as gender, mother tongue, ethnicity, and geographic division. It does not, however, collect data on children’s socioeconomic status.

**Figure 40: Levels of development of Bangladesh’s ECE policies for Monitoring and Assuring Quality**



Source: Author’s estimates based on SABER data collected for this study.

Note: 1 = Latent, 2 = Emerging, 3 = Established, and 4 = Advanced.

#### 4.4 Policy Options

135. **The government needs to address the contradictions and lack of clarity on the respective roles and responsibilities of MoPME and MoWCA in regard to PPE.** The Operational Framework for Preprimary Education establishes MoPME as the lead ministry for PPE, while the CPECCD states that MoWCA is the lead ministry for all early childhood activities including education. In practice, the two ministries operate in parallel, with MoPME leading PPE and MoWCA focusing on health, nutrition, and parenting. The goal of offering integrated services to improve child outcomes for PPE children has not been achieved. There is a need to provide further clarity on which ministry should coordinate and lead efforts focused on the delivery of integrated ECE services and allocate the necessary funds to the lead ministry to coordinate cross-ministry collaboration in this area. As a step in this direction, it will be useful to conduct a comprehensive mapping of ECD activities across the relevant ministries and share the findings with all stakeholders to identify future joint initiatives.

136. **There is a need to review the human resource management process to ensure qualified teachers are attracted, developed, and retained for ECE.** The revised recruitment teacher policy aims to attract teachers with higher education qualifications. There is a need to review the preprimary teacher professional development opportunities with a focus on incorporating specialized aspects of ECE and child development. The lack of required ECD-focused specialized training, pre-service, and in-service for PPE teachers is likely to have a detrimental impact on program quality. Moreover, there is a lack of qualified and experienced preprimary educators

who could serve as teacher trainers and teacher mentors. Hence, creating a pool of master trainers and instructors with deep expertise in PPE should be a priority for the government.

137. **MoPME needs to ensure that a robust M&E mechanism is in place to ensure quality of preprimary programs at both public and private centers.** Over the past decade, the GoB has developed a number of quality standards for the preprimary level. It should now take the next step forward to ensure that those standards are consistently applied. Without a strong monitoring and quality assurance system, the quality of programs runs a higher risk of being poor, with negative consequences for children's development and safety. In addition, data on child development can be used as a key part of an M&E system to track system performance and inform future reforms.

## Chapter 5: Financing Early Childhood Education in Bangladesh

138. **The GoB's National Children Policy 2011 and the CPECCD 2013 express the need for adequate public financing of ECE and specify the ministries responsible for funding ECE programs.** The Children Policy presents child development as a priority in the national development agenda and mentions that initiatives will be taken to allocate enough funds in the national budget for ECD. The CPECCD has designated MoWCA as the ministry responsible for coordinating the arrangement of necessary funds to implement the policy and MoPME as the provider of PPE. Accordingly, the implementation of ECE programs in public schools is expected to be funded by MoPME. Each year, the DPE in MoPME—the agency responsible for the planning, coordination, and implementation of PPE activities—is required to allocate the necessary budget in its annual operation plan to provide free PPE to children in public primary schools.

139. **Non-state actors providing ECE services are expected to finance their activities through their own resources, though the GoB has provisions for some limited support to NGOs working in this subsector.** According to the government-NGO collaboration guideline of MoPME (2013), NGOs involved in providing ECE are entitled to receive TLMs produced by the NCTB and also have access to government training facilities. However, funds required for teacher salary, supplementary learning materials, building rental, and monitoring and management activities are expected to be mobilized from their own budgets and other sources. The government-NGO collaboration guideline also mentions that the government plans to establish partnerships with appropriate institutions, including nongovernment intuitions, for the development of PPE professionals and that the funding modalities for such partnerships would be determined on a case-by-case basis.

### 5.1 Public Financing of ECE in Bangladesh

#### 5.1.1 Trends in Public Financing of ECE

140. **In Bangladesh, public resources for ECE are primarily channeled through the education sector.** As discussed earlier, while MoWCA has some key responsibilities in the ECE subsector, MoPME is the main agency responsible for delivering ECE services across the country through its PPE program. Hence, compared to the annual PPE budget for MoPME, the budget allocated for ECE-related activities through MoWCA is small. For example, in 2017–18, the total budget allocated by MoWCA for ECE activities was only around BDT 258 million (US\$3.18 million). In contrast, the budget allocated by MoPME for PPE in 2016–17 was BDT 9,093 million (US\$112.15 million) or approximately 35 times larger. The discussion in the following paragraphs will, therefore, focus only on the MoPME budget and expenditure for PPE.<sup>47</sup>

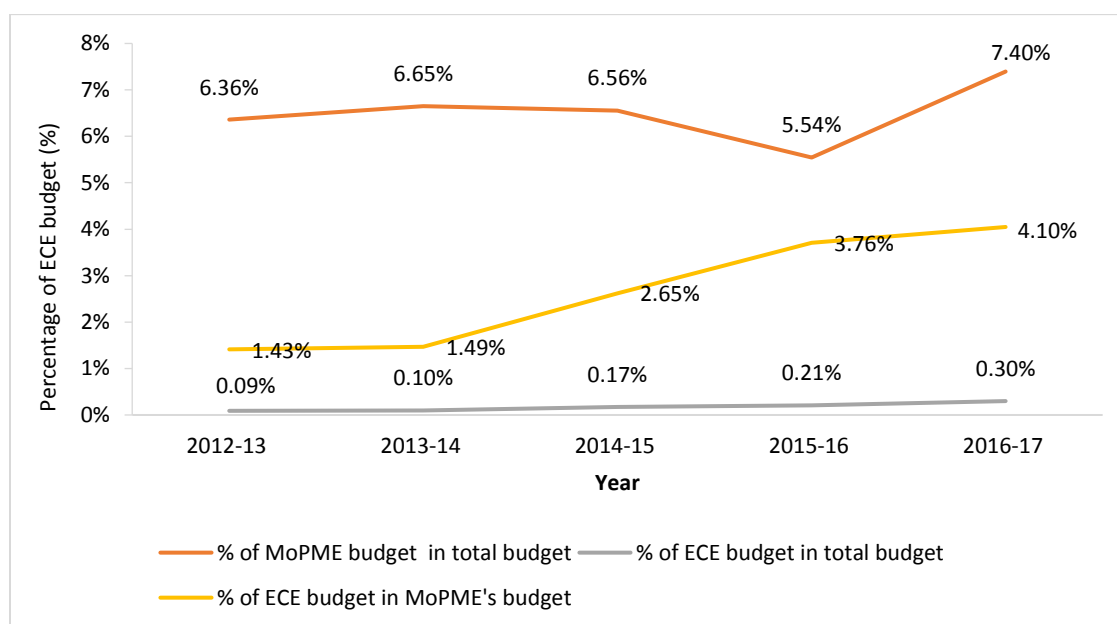
141. **There has been a steady increase in the ECE budget in recent years, both in absolute terms as well as in terms of its share of the government's budget.** As shown in Figure 41, the

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<sup>47</sup> The terms 'ECE budget' and 'ECE expenditure' will refer to MoPME's PPE budget and expenditure.

ECE budget as a share of total government budget increased from 0.09 percent to 0.3 percent between 2012–13 and 2016–17. At the same time, the share of ECE budget within MoPME also increased, reflecting the increased importance given to this subsector by the GoB in general, and by MoPME in particular. For example, while the share of ECE in the MoPME budget was only 1.43 percent in 2012–13, it had increased to 4.10 percent in 2016–17. Supported by a steady growth in national GDP and accompanying increase in the total government budget, the increase in the budget share of ECE has translated into a 646 percent growth in the ECE budget between 2012–13 and 2016–17 in absolute terms, from approximately US\$17.35 million to US\$112.15 million (Table 13).

**Figure 41: ECE budget as a share of total GoB budget and MoPME budget (2012/13–2016/17)**



Source: Interim Financial Report of Primary Education Development Program (PEDP3) 2012–2016, MoPME, Ministry of Finance.

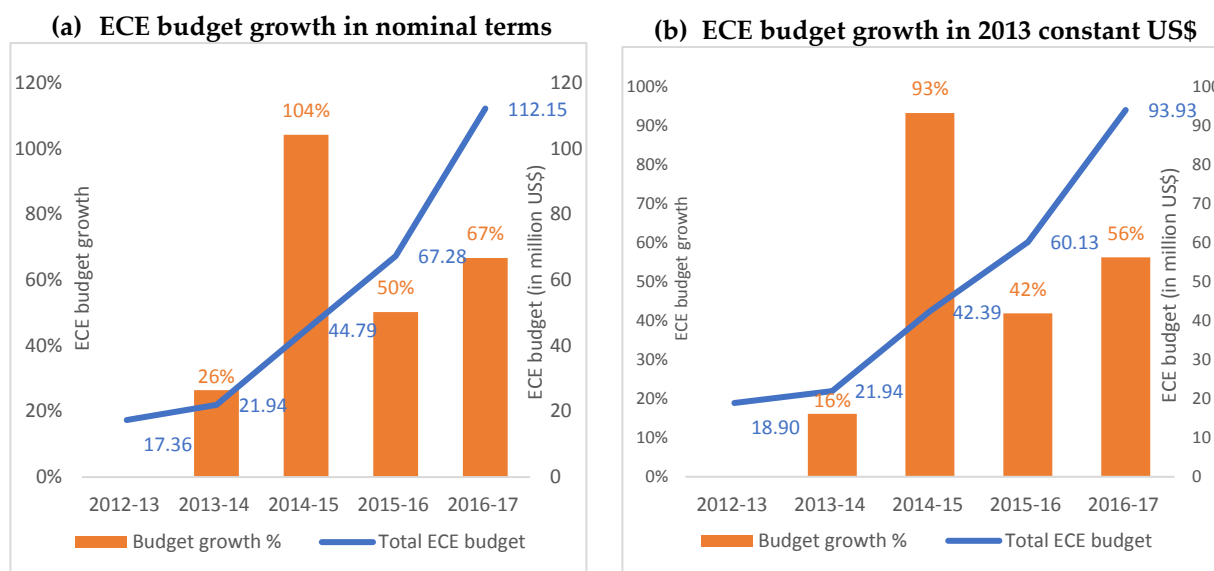
**Table 13: Share of ECE budget in total budget, MoPME budget, and GDP (2012/13–2016/17)**

Year	Total GoB budget (US\$, millions)	Total education budget (US\$, millions)	Education budget as a share of GDP (%)	Total MoPME budget (US\$, millions)	MoPME budget as a share of total budget (%)	Total ECE budget (US\$, millions)	ECE budget as a share of total budget (%)	ECE budget as a share of MoPME budget (%)	ECE budget as a share of GDP (%)
2012–13	19,312.00	2,676.00	2.06	1,228.125	6.36	17.35	0.001	1.43	0.01
2013–14	22,417.62	3,136.62	2.11	1,491.25	6.65	21.94	0.001	1.49	0.01
2014–15	26,068.25	3,651.62	2.18	1,709.12	6.56	44.79	0.002	2.65	0.03
2015–16	32,696.38	3,950.62	1.84	1,812.75	5.54	67.27	0.002	3.76	0.03
2016–17	37,458.25	6,126.25	2.50	2,770.25	7.40	112.15	0.003	4.10	0.05

Source: Interim Financial Report of Primary Education Development Program (PEDP3) 2012–2016, MoPME, Ministry of Finance.

142. **One of the main reasons for the significant increase in PPE budget between 2012–13 and 2016–17 was the recruitment and training of a large number of teachers during this period.** The government’s PPE expansion plan of 2012 had identified teacher recruitment and PPE teacher training as key areas of focus for universalizing access to PPE. Accordingly, the DPE received a significant increase in its budget for PPE teacher training and recruitment in 2014, resulting in a 104 percent increase in the PPE budget in nominal terms for 2014–15 (see Figure 42a). As training activities accelerated in the following years, there was a significant growth in budget in FY2015–16 and FY2016–17 as well. In addition, the number of PPE teachers increased by 23 percent from 22,277 in 2016 to 27,397 in 2017, resulting in a further increase in PPE budget allocation.<sup>48</sup> As shown in Figure 42b, the growth in ECE budget is equally impressive in real terms as well.

**Figure 42: ECE budget growth in nominal and real terms (US\$, millions), 2012/13–2016/17**



Source: Interim Financial Report of Primary Education Development Program (PEDP3) 2012–2016.

143. **The increase in the ECE budget has been accompanied by a steady increase in per child expenditure.** Between 2013 and 2016, the number of PPE students increased by around 5.6 percent from around 2.96 million to 3.13 million (see Table 14). At the same time, public expenditure on ECE increased by over 645 percent, as the government recruited more teachers, increased the provision of supplementary reading materials, and constructed extra classrooms to enhance access to PPE in public primary schools. As a result, the per child expenditure on ECE increased dramatically from US\$3.67 to US\$19.37 in nominal terms, reflecting the government’s commitment to improve both the quantity and quality of PPE.

<sup>48</sup> The budget figures for 2017 are not available. But it is relevant to note that compared to the 23 percent increase in teacher numbers, the increase in the number of students was only 17 percent, resulting in an improved STR.

**Table 14: Per child public expenditure on ECE, 2013/14–2016/17**

Year	Number of PPE students	Total ECE expenditure (US\$)		Per child expenditure (US\$)	
		Nominal	Real <sup>a</sup>	Nominal	Real <sup>a</sup>
2013–14	2,962,063	10,860,136	10,860,136	3.67	3.67
2014–15	3,088,460	33,904,346	32,085,423	10.98	10.39
2015–16	2,864,877	35,380,889	31,625,392	12.35	11.04
2016–17	3,129,535	60,604,988	50,760,949	19.37	16.22

Source: Interim Financial Report of Primary Education Development Program (PEDP3) 2012–2016, MoPME.

Note: a. 2013 constant US\$.

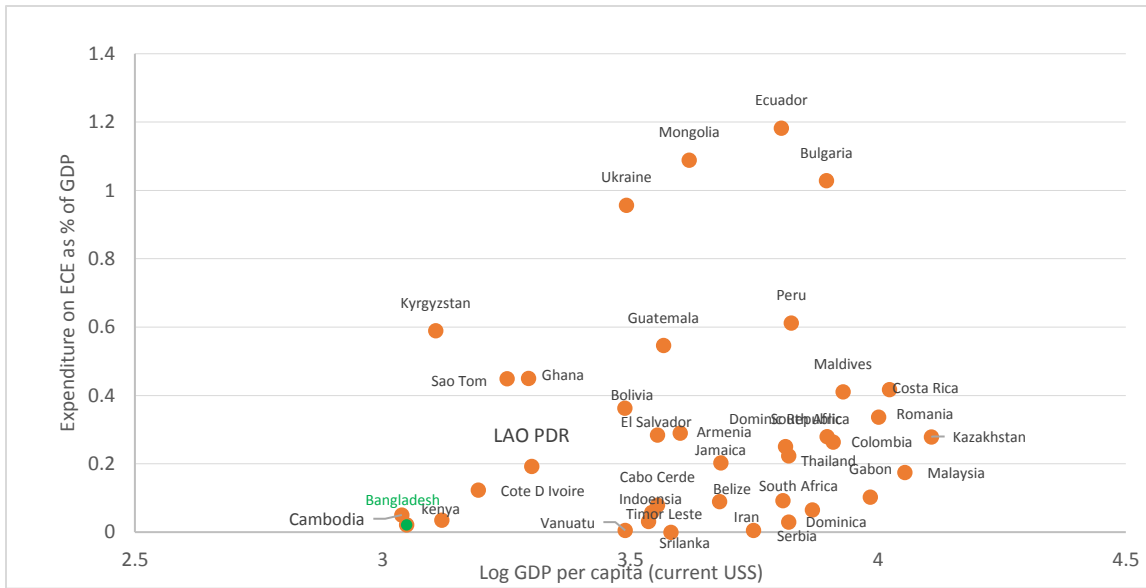
144. **However, public spending on ECE in Bangladesh is low by international standards as is the spending in the overall education sector.** In 2015, public expenditure on education as a share of the GDP was only 2.2 percent, making Bangladesh the lowest ranked country in South Asia along with Sri Lanka. Similarly, the country ranked second from the bottom in the region in terms of the share of the national budget devoted to education (11.7 percent). These figures are significantly lower than the shares recommended by the Incheon Declaration 2015,<sup>49</sup> which urges national governments to allocate 4–6 percent of their GDP and/or at least 15–20 percent of their total public expenditure to education.

145. Given that public provision of ECE/PPE in Bangladesh is primarily the responsibility of the education sector, ECE too receives a relatively small amount of public financing. For example, in 2014, public spending on ECE in Bangladesh was only 0.02 percent of GDP, much lower than the figures for most lower-middle-income countries which typically spend over 0.12 percent of the GDP on ECE (see Figure 43 and Annex 7). Bangladesh’s public spending on ECE as a share of GDP was also lower than that of most other South Asian countries (see Figure 44). Furthermore, the country also lags behind in terms of per child expenditure on ECE—for example, while the average per child ECE expenditures of low-income and lower-middle-income countries were US\$123 and US\$242, respectively, in 2012 (Wils 2015), Bangladesh spent only US\$3.67 per child in 2013–14 (see Table 14). The low public spending in this subsector imposes severe constraints on improving both the quality and quantity of ECE services. Clearly, the country’s current level of expenditure on ECE is inconsistent with its aspirations to join the ranks of upper-middle-income countries by 2021.

<sup>49</sup> The Incheon Declaration was adopted in May 2015 by many multilateral organizations, including the World Bank, and participants from 160 countries during the World Education Forum.



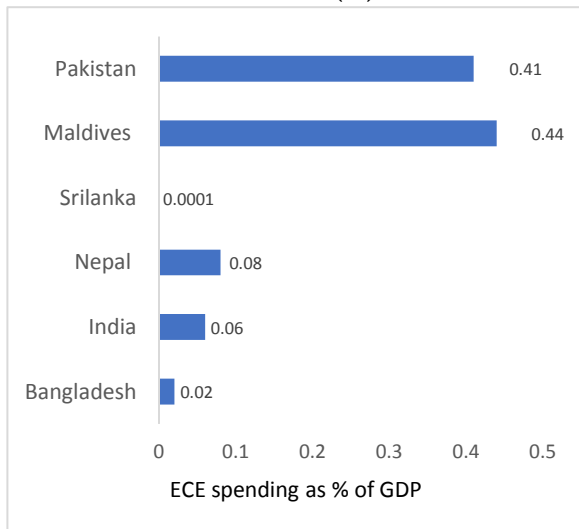
**Figure 43: Public spending on ECE in middle-income countries in 2014 (% of GDP)**



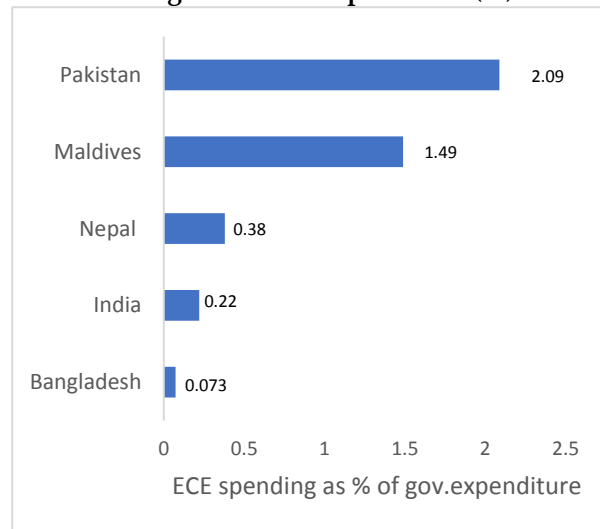
Source: UNESCO UIS Database, World Bank Databank, Bangladesh data from Interim Financial Report of PEDP3 2014.

**Figure 44: Public spending on ECE in South Asian countries, 2014**

**(a) Public spending on ECE as a percentage of GDP (%)**



**(b) Public spending on ECE as a share of total government expenditure (%)**



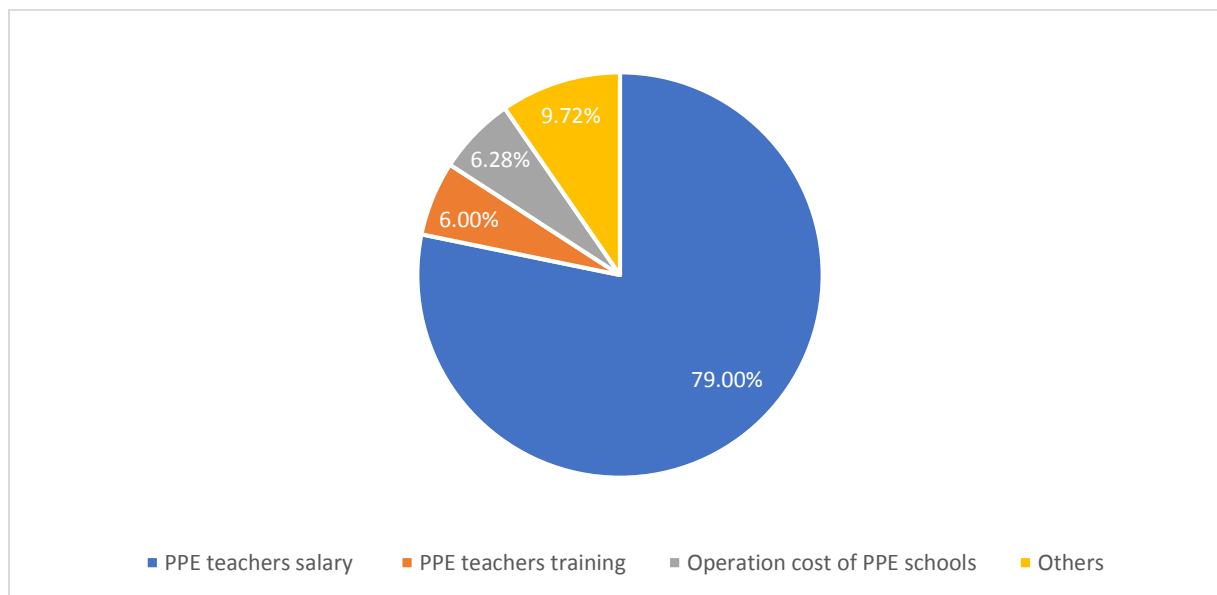
Source: UNESCO UIS Database, World Bank Databank, Bangladesh data from Interim Financial Report of PEDP3 2014, Sri Lanka data from laying the foundation for ECE in Sri Lanka report 2014.

### 5.1.2 Composition of ECE Budget and Budget Utilization Rate

146. **The government's budget for PPE is primarily spent on teacher salaries.** Figure 45 shows the distribution of ECE expenditure across four broad areas between 2011 and 2015 under PEDP3—the program under which PPE was first implemented by MoPME. Of the total PPE expenditure incurred during this period, 79.0 percent was associated with teacher salaries. The

remaining budget (21 percent) was spent on operational costs for schools offering PPE (6.3 percent), teacher training (6.0 percent), and other activities<sup>50</sup> (9.7 percent). While a breakdown of expenditures by more specific items is not available, the PEDP3 revised program document mentions textbooks, teacher’s guidelines, and supplementary reading materials as key inputs on which the allocated budget was spent.

**Figure 45: PPE Expenditure under PEDP3, 2011–2015**



Source: PEDP3 Revised Program Document, 2016.

147. **The budget utilization rate for PPE has increased over the years, but there is still plenty of room for improvement.** As shown in Table 15 and Figure 46, the substantial increase in the ECE annual budget growth between 2012–13 and 2016–17 was accompanied by an even larger percentage growth in ECE expenditure each year (except in 2015–16), reflecting higher utilization of the allocated budget over time. More specifically, while only 15 percent of the allocated budget was utilized in 2012–13, the budget utilization rate increased substantially in the following years, reaching a high of 76 percent in 2014–15. During this period, ECE spending as a percentage of GDP increased twelvefold from 0.002 percent to 0.025 percent. Nevertheless, as noted earlier, Bangladesh’s ECE expenditure as a share of GDP is relatively small compared to the shares in lower-middle-income countries.

148. **The low budget utilization rate in the initial years of PEDP3 was the result of slow implementation of the PPE expansion plan and teacher recruitment plan under the program.** Because of delays in initiating and completing the recruitment of the teachers at the beginning of the program period, the budget allocated for teacher salaries remained largely unspent, resulting in a low budget utilization rate in 2012–13. In the following two years, the PPE budget utilization rate increased substantially to over 75 percent as rapid progress was made in teacher recruitment

<sup>50</sup> Other activities include curriculum development, orientation on PPE for officers, PPE textbook printing and distribution, and different studies.

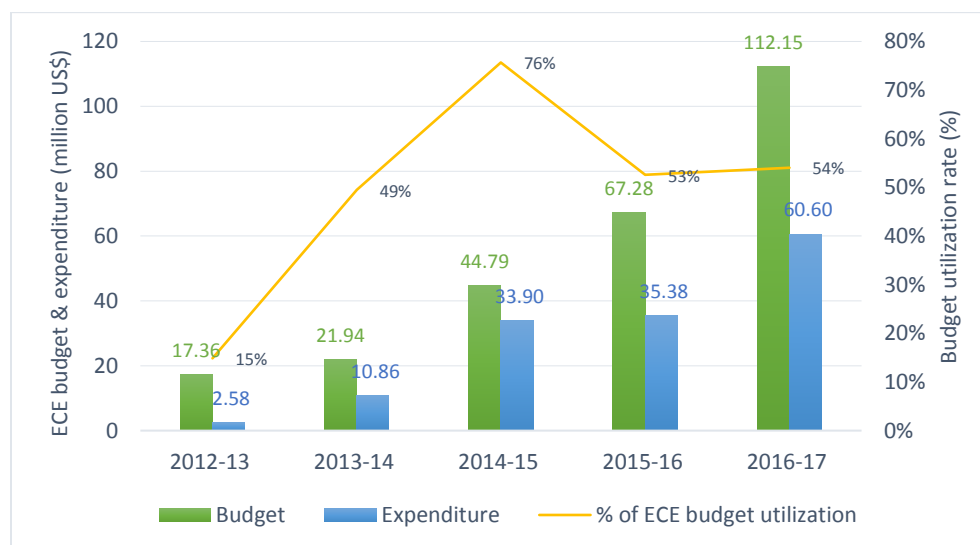
and subsequently in the training of these teachers on the PPE curriculum. Note that, in absolute terms, there was a dramatic growth in the ECE budget in 2015–16 and 2016–17. And though the expenditure also increased substantially during this period, it did not keep pace with the growth in the budget, resulting in lower budget utilization rates (less than 55 percent) in these two years.

**Table 15: ECE budget and expenditure (US\$, millions), 2012–13**

Financial year	ECE budget (US\$, millions)	ECE budget growth (%)	ECE expenditure (US\$, millions)	ECE expenditure growth (%)	ECE expenditure as a share of budget (%)	ECE expenditure as a share of GDP (%)
2012–13	17.35		2.58		14.91	0.002
2013–14	21.94	26.42	10.86	319.64	49.49	0.017
2014–15	44.79	104.13	33.90	212.19	75.69	0.021
2015–16	67.27	50.19	35.38	4.36	52.59	0.017
2016–17	112.15	66.70	60.60	71.29	54.04	0.025

Source: ECE budget Interim Financial Report of Primary Education Development Program (PEDP3) 2012–2016, MoPME, GDP data from Ministry of Finance.

**Figure 46: ECE budget utilization, 2012/13–2016/17**



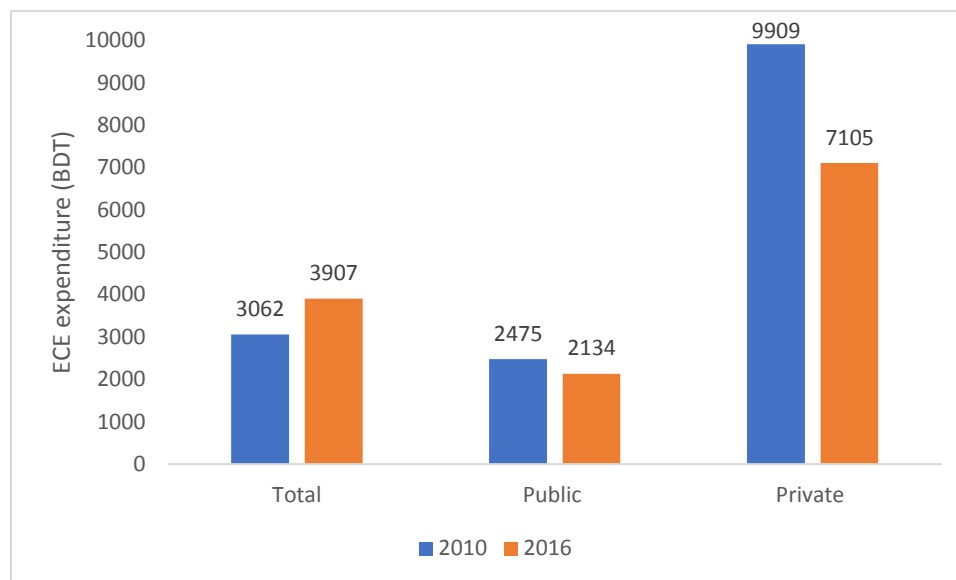
Source: Interim Financial Report of Third Primary Education Development Program (PEDP3) 2012–2016, MoPME.

## 5.2 Private (household) Spending on ECE

149. **A large share of ECE services in Bangladesh is privately financed.** As noted in Chapter 3, non-state institutions comprise around 41 percent of the institutions providing ECE and around 63 percent of the children enrolled in ECE programs attend these institutions. While some of these institutions are subsidized by funds from donors and different non-profit entities such as religious organizations and NGOs, others rely on student fees to pay for their services.

150. **Families spend a substantial share of their household resources on ECE.** According to the HIES 2016 data, around 3.8 percent of the households incurred ECE expenditures and these households devoted 3.3 percent of their total consumption to ECE. It is interesting to note that households incur some costs even when their children are attending public ECE institutions—as shown in Figure 46, the average annual ECE expenditure per child for children attending public institutions in 2016 was BDT 2,134, significantly lower than the corresponding figure of BDT 7,105 for private institutions, but nevertheless substantial.

**Figure 47: Average per child expenditure on ECE 2010 and 2016**

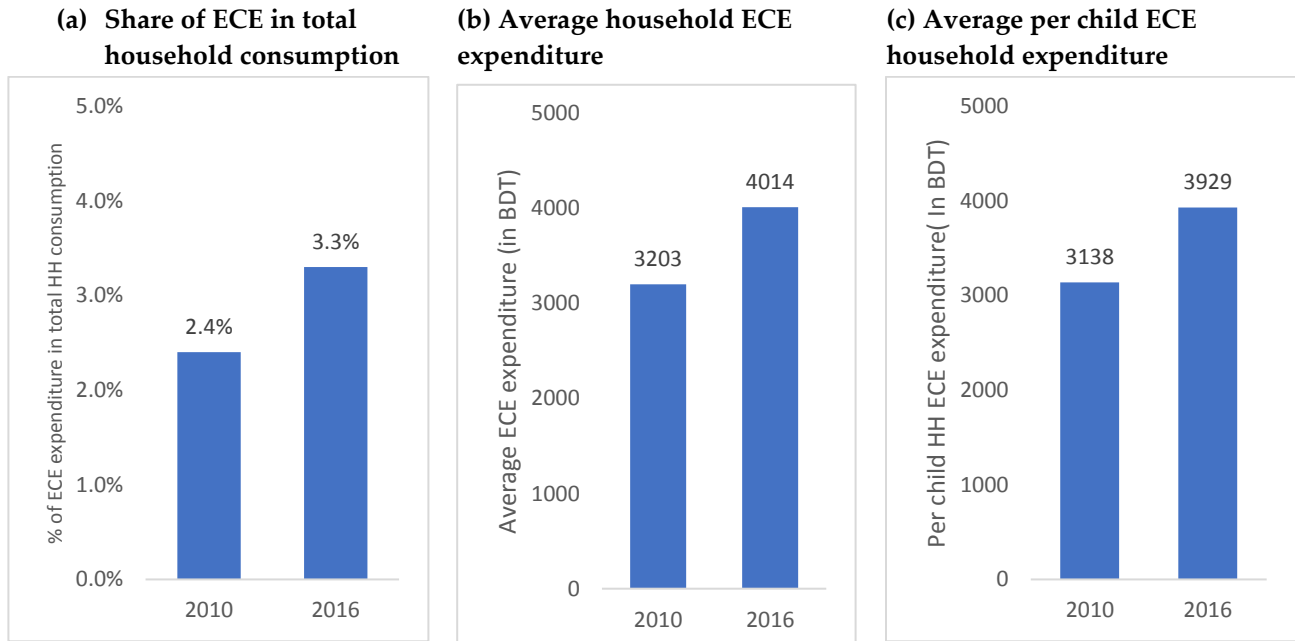


Source: Authors' estimates using HIES 2010 and 2016.

151. **The share of household resources spent on ECE has increased over time.** The percentage of households with ECE expenditures decreased from 4.1 percent in 2010 to 3.8 percent in 2016. This decrease may be a result of the expansion of free PPE in GPSs as well as the expansion of lower cost private providers of ECE, which is reflected in the decrease in per child ECE expenditure in private institutions as shown in Figure 47.<sup>51</sup> However, the share of ECE expenditures in total household consumption of households with positive ECE expenditures increased from 2.4 percent in 2010 to 3.3 percent in 2016 (Figure 48a). This increase in share is a result of the rising average household ECE expenditures during this period, which increased by around 25 percent from BDT 3,203 in 2010 to BDT 4,014 in 2016 (Figure 48b). There was also a substantial growth (25 percent) in the household ECE expenditure per child (Figure 48c). These trends reflect the increasing importance given to ECE investments by households.

<sup>51</sup> Note that, as shown in Figure 47, the per child expenditure on ECE for children attending private institutions is more than three times higher than per child expenditure on ECE for children attending public institutions. Hence, although the per child expenditure in private institutions decreased, the ECE expenditure per child in the country as a whole increased as a result of a large increase in private providers of ECE between 2010 and 2016.

**Figure 48: Household ECE expenditure and per child ECE household expenditure, 2010 and 2016**

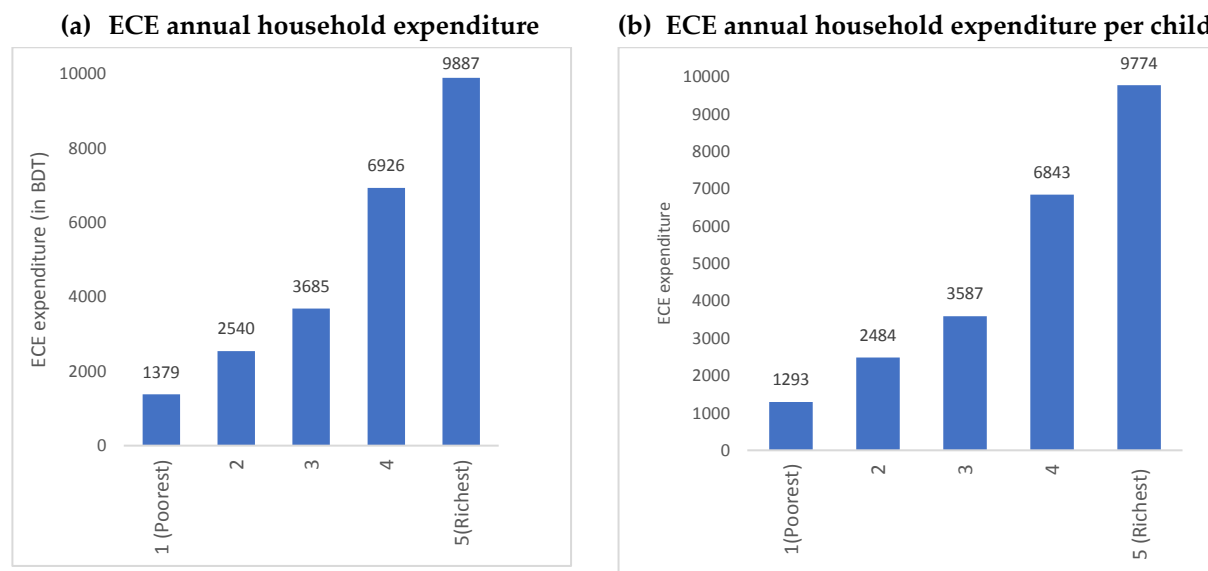


Source: Authors’ estimates using HIES 2010 and 2016.

### 5.2.1 Disparities in Private Spending

152. **Poorer households have substantially lower private spending on ECE than richer households.** In 2016, the average annual ECE spending for households in the richest consumption quintile was BDT 9,887, more than seven times higher than the average ECE spending of BDT 1,379 for households in the poorest quintile (Figure 49a). A similar pattern of difference between the richer and poorer households can be seen when we look at per child household expenditures on ECE—households in the richest quintile spent 7.6 times more per child on ECE than households in the poorest quintile (Figure 49b).

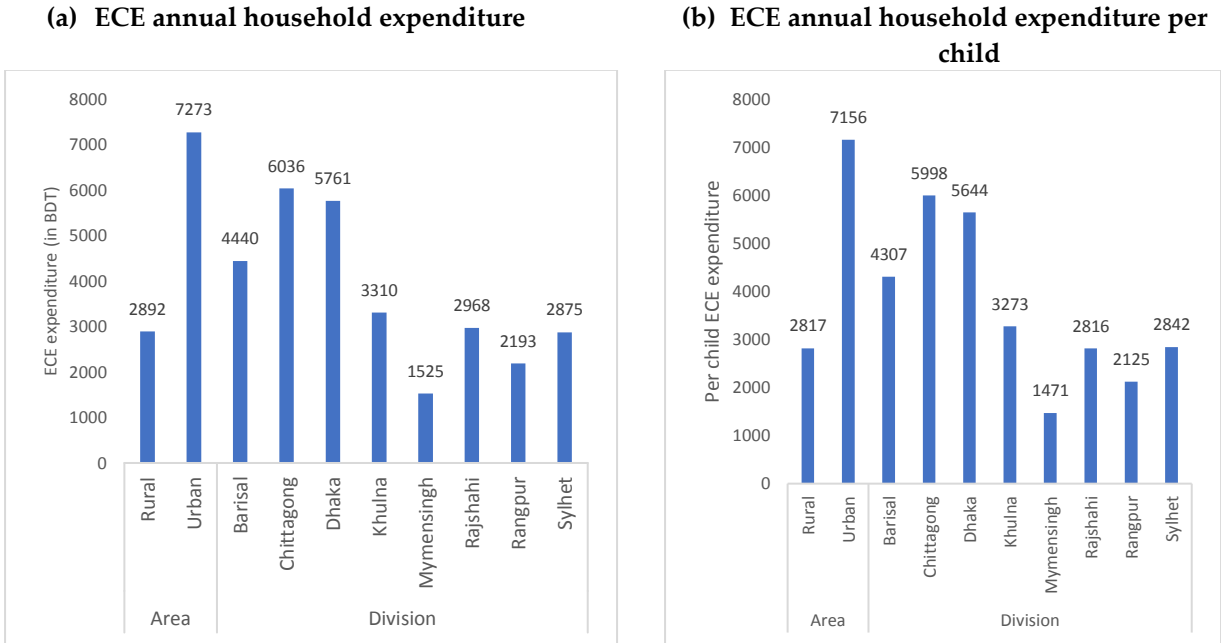
**Figure 49: ECE annual household expenditure and per child household expenditure by quintile, 2016**



Source: Authors' estimates using HIES 2016.

153. **There are significant disparities in household ECE spending across geographic areas.** Rural areas lag behind urban areas significantly in terms of total as well as per child household spending on ECE. As shown in Figure 50a, household ECE spending in urban areas was 2.5 larger than the spending in rural areas in 2016. The per child spending difference between urban and rural areas was almost as stark (Figure 50b). There are also notable differences in ECE household spending across divisions, with households from Chittagong and Dhaka—the two most urbanized divisions—spending more than 3.5 times the amount spent by households in Mymensingh, the division with the lowest household spending as well as per child spending on ECE.

**Figure 50: ECE annual household expenditure and per child household expenditure across geographical areas, 2016**

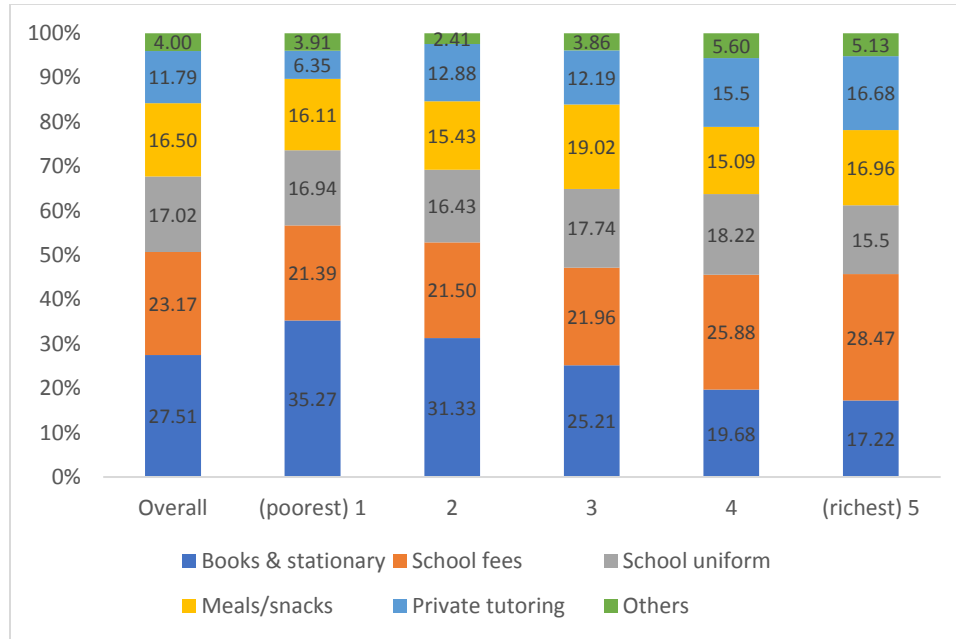


Source: Authors' estimates using HIES 2016.

154. **Household private spending on ECE is mainly used to cover books and stationery and school fees.** In 2016, households spent on average about 27.51 percent on books and stationery; 23.17 percent on school fees (tuition, admissions, and examination fees); 17.02 percent on school uniform; 16.5 percent on meals/snacks; 11.79 percent on private tutoring; and the remaining 4.00 percent on miscellaneous items (including Internet and accommodation) (Figure 51).<sup>52</sup> Comparing across quintiles, it is observed that richer households allocate larger shares of their ECE expenditures to school fees and tutoring than poorer households. On the other hand, for the poorest quintile, books and stationery is the most important expenditure category, with expenditures in this category comprising over 35 percent of the budget spent on ECE. One reason why fees do not feature prominently for poor households is that children from these households tend to attend public institutions. ECE school fees in non-state institutions vary significantly across institutions and can sometimes be high. In urban areas, for example, households paid as much as BDT 49,100 per year in 2016, though the average was relatively low (BDT 3,064) and 75 percent of the of the children who paid school fees paid BDT 4,200 or less per year.

<sup>52</sup> Books and stationery include textbooks, exercise books, notebooks, and other stationery.

**Figure 51: ECE annual household expenditure and per child household expenditure across geographical areas, 2016**

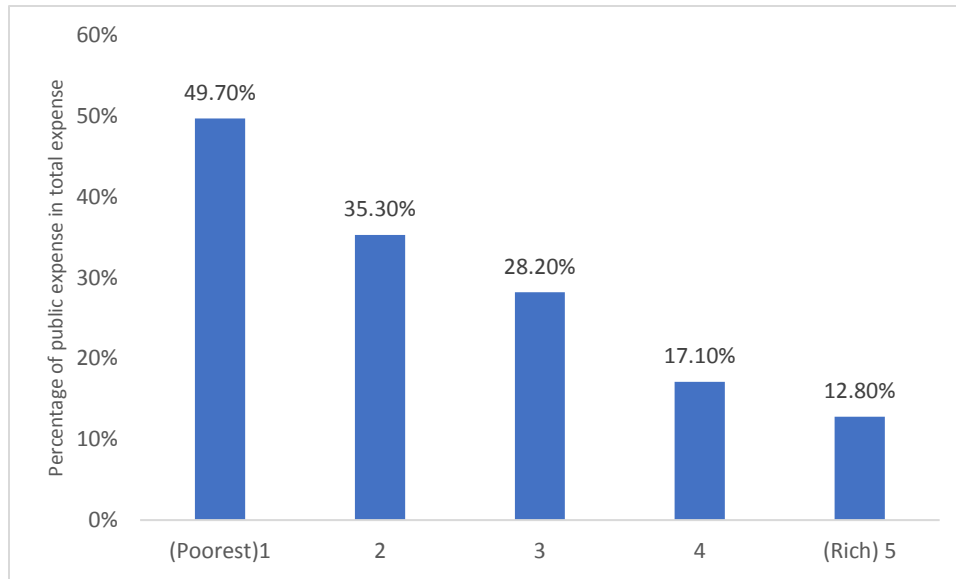


Source: Authors' estimates using HIES 2016.

155. **As public spending has a larger importance for poorer children, increase in public spending can help reduce the ECE spending gap between poor and rich households.** As shown in Figure 52, in 2016, about 49.7 percent of the ECE expenditures of the average household in the poorest quintile came from public resources compared to 12.8 percent for a household from the richest quintile, indicating that benefits from public spending are more important for poorer households. The contribution of public spending in reducing the spending gap between the rich and poor households is quite substantial. For example, while the private per child ECE household expenditure of the richest quintile is about 6.8 times higher than the per child household expenditure of the poorest quintile, this ratio reduces to 3.9 times when public spending is also taken into account (Table 16).



**Figure 52: Share of public expenditure in ECE expenditure by quintile, 2016**



Source: Authors' estimates using HIES 2016.

**Table 16: ECE expenditure per child, including and excluding public spending, 2016**

Consumption quintile	Private spending	Private + public spending
1 (poorest)	1,566	3,116
2	2,842	4,392
3	3,939	5,489
4	7,536	9,086
5 (richest)	10,598	12,148

Source: Authors' estimates using HIES 2016.

### 5.3 Policy Options

156. **The number of children enrolled in ECE programs is expected to increase substantially in the coming years, which will require increased financial resources and service delivery capacity.** There is currently a need to increase investments in ECE quality enhancement activities such as professional development of teachers, capacity strengthening of teacher training institutions, strengthening of the quality assurance mechanism, and provision of adequate number of classrooms for PPE.<sup>53</sup> Apart from these expenditures, the government's plans to add one more year of PPE in public primary schools will demand a substantial increase in public outlays related to additional classroom construction, teacher recruitment, and provision of essential TLMs. Furthermore, as two years of PPE becomes the norm, families will also need to increase their private investments in ECE.

<sup>53</sup> For example, the government needs to construct around 47,496 classrooms to ensure that there is a separate PPE classroom in each government primary school. This is expected to cost around US\$1.03 billion (DPE 2018a).

157. **As in most other countries, it is likely that ECE services in Bangladesh will continue to be financed by a combination of public and private funds.** Although the government is committed to expanding the provision of ECE, it will not be possible for public schools alone to cover the entire ECE age population. Even at the primary level, around 14.78 percent of the students currently attend non-state managed schools (DPE, 2018b). Hence, effective mobilization of non-state ECE providers is necessary to complement the efforts of the government to eventually ensure universal access to ECE.

158. **Given the vast amount of investment needed for universalizing ECE, it will be relevant for Bangladesh to explore different options for mobilizing funds to support ECE expansion.** Currently, funding for ECE in Bangladesh comes primarily from two sources: central government development budget, non-development budget (to fund PPE in public schools), and student fees paid by individual families to non-state institutions. When it comes to public financing, some cost sharing between the central and local governments could be an approach to mobilizing extra resources for ECE. In Finland, for example, around 55 percent of the financing for ECE services is provided by municipal governments, 30 percent is provided by the state, and the remaining is collected from families. Similarly, in Brazil, most of the public ECE financing comes from municipal governments. Box 5 shows examples of some innovative approaches used in different countries to raise funds from the private sector to support ECE. These include sin taxes, social impact bonds, payroll taxes, and resources allocated by private firms to fulfil their CSRs. Such approaches can be explored in the case of Bangladesh as well.

**Box 5: Innovative financing sources**

**Sin tax:** A sin tax is a tax on goods and services considered harmful to society (for example, tobacco, liquor, and gambling). The state of California has been using cigarettes and tobacco taxes to fund better-quality child care and ECE programs. Similarly, in the Philippines, the Philippines Amusement and Gaming Corporation—a government corporation that regulates privately owned casinos—provides funding for the construction and implementation of ECD centers.

**Social impact bonds:** A social impact bond is a results-based mechanism for funding social programs, while minimizing the risk to the government. It involves a private investor making upfront payments to a service provider to achieve some prespecified outcomes and the government repaying the investor (with interest) if the outcomes are achieved. This innovative mechanism has been used in South Africa to establish the Impact Bond Innovation Fund, which aims to improve the development outcomes of children in two low-income communities in the Western Cape. Investors will be repaid by the government if the prespecified outcomes are achieved.

**Payroll tax:** A payroll tax is the tax an employer subtracts, on behalf of government, from the employees' wages or salaries. Columbia had introduced a payroll tax of 3 percent in 1974 to scale up ECD interventions focused on health aspects. A semiautonomous agency, the Columbian Institute for Family Welfare (ICBF) affiliated with Ministry of Health, received around US\$540 million in 2004 in the form of payroll tax income. The ICBF program related to early childhood care reached 1.2 million children across the country in 2004.

**CSR:** Private companies can be encouraged to contribute to ECE in various ways as part of their CSRs. The 'Soar with Reading' program launched by Jet Blue and PBS KIDS in the United States in 2011 is a good example of CSR support to ECE. It has provided early childhood literacy tools in-flight and online

as well as books to children in low-income neighborhoods.<sup>54</sup> In Turkey, the private sector has supported advocacy work on ECE to encourage policy makers to place ECD on the priority policy agenda. For example, an influential report on the need for ECE entitled 'Right Start: Pre-Primary Education in Turkey' was prepared by the Turkish Industry and Business Association in 2005. Similarly, corporate local funders provide over 50 percent of the funding for the Mother Child Education Foundation (ACEV), an organization which focuses on ECE, parent training, and women's empowerment. An awareness campaign on the importance of ECE entitled '7 is too late' implemented by ACEV has reached around 40 million people through media coverage.

*Sources:* ACEV 2016; Ilifa 2011; RDI 2016; World Bank 2016.

159. **It is also relevant for Bangladesh to explore different public-private partnership models of service delivery to expand the reach of ECE programs.** While one of year of PPE is an integral part of public primary schools, the reach of public PPE programs is currently limited by the geographical distribution of primary schools, especially in rural area. The catchment areas of primary schools are defined keeping primary age children in mind; hence the commute distances are sometime problematic for younger children. An effective combination of public and private financing can, therefore, help expand access to ECE as well and enhance equity in access. Box 6 presents some international examples of models where public financing is used to support private delivery of ECE services. These examples include block grants, per child payments, subsidies to low-income families paid directly to ECE providers, and school vouchers.

**Box 6: Examples of public financing and private delivery of ECE services**

**South Africa:** PPE in South Africa has been substantially scaled up in a number of provinces, including the Eastern Cape, Western Cape, and North West, through provincial government grants to community-based centers on a per learner basis. Examples of such programs include the expended public work program (EPWP) and the community work program (CWP), which are specifically targeted to areas where ECE opportunities are unavailable. Under the CWP, playgroup facilitators are paid by the Department of Cooperative Governance and Traditional Affairs of the government. The public grants are mostly used for maintenance and infrastructure.

**Indonesia:** The Ministry of National Education in Indonesia has been providing seed funds to private and nonprofit organizations for expansion of ECE activities. This funding through block grants has supported 4,000 ECE institutions, and new block grants are expected to support additional 3,000 new initiatives. The recipients of the block grants are allowed to provide both formal and nonformal education.

**New Zealand:** The New Zealand government has been providing family child care subsidy on the basis of family income. This subsidy is paid directly to the ECE provider on behalf of individual children and the subsidy can be up to NZD 27 per week, with the balance of the fee being paid by the family. Additionally, tax exemption on child care fees and housekeeper allowance has also encouraged family investments in ECE activities. These approaches have contributed to ensuring the enrollment and retention of children in early years of schooling.

**Chile:** Chile has been implementing a service delivery initiative where the National Board of Day Care Centers works as the primary provider of public child care. Approximately, 172,900 students under this program attend private or independent centers subsidized by the government through the National

<sup>54</sup> Since 2015, it has been distributing free books through vending machines.

Board. The *Centros de Atención Integral Familiar* (CAIF) centers of Uruguay also follow this modality to reach vulnerable families. Service delivery initiatives are normally designed to engage government entities to finance the student placement in existing private program. This kind of approach brings sustainable impact especially when a public program fails to accommodate demand. Under this arrangement, a contract is initiated with details of per- student or per child payment the private program will be receiving from government agencies. This payment from the government is subject to achieving specific targets and maintaining certain standards.

**Hong Kong:** Vouchers are another mechanism for publicly financing private provision of ECE services. The ongoing preprimary education voucher scheme (PEVS) in Hong Kong (introduced in 2006) is a good example of this financing approach. As PPE is not part of compulsory and universal education in Hong Kong, PPE services are provided by private or non-profit institutions. Under the PEVS, families receive subsidies in the form of vouchers which they can use to pay for ECE services provided by approved non-profit kindergartens/kindergarten-cum-child care centers/schools with kindergarten classes.

*Source:* Ilifa 2011; RDI 2016; World Bank 2016; UNESCO 2006.

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**Annex 1: Marginal Effects of Probit Estimates for Enrollment in ECE and Age-Appropriate Enrollments in ECE for 2010**

<b>Variables</b>	<b>(1) Enrolled in PPE (versus not enrolled in school) for age 5</b>	<b>(2) PPE in age 5 versus other ages</b>	<b>(3) Age 5 children enrolled in PPE versus enrolled in other grades</b>
The child is a female	-0.207* (-1.664)	-0.013 (-0.096)	-0.221 (-1.322)
The child lives in urban area	0.061 (0.440)	-0.261* (-1.721)	-0.156 (-0.848)
The child has disability	0.353 (0.943)	0.296 (0.742)	0.247 (0.537)
Years of education of father	0.027 (1.292)	-0.005 (-0.209)	0.023 (0.800)
Years of education of mother	0.058*** (2.603)	0.068*** (2.636)	0.019 (0.611)
Number of children ages 0–17 in the family	-0.053 (-1.000)	-0.154** (-2.563)	-0.400 (-1.637)
The child's family is in second poorest quintile	-0.079 (-0.453)	-0.047 (-0.222)	-0.320 (-1.260)
The child's family is in third poorest quintile	0.157 (0.814)	-0.186 (-0.854)	0.084 (0.285)
The child's family is in fourth poorest quintile	0.114 (0.562)	-0.320 (-1.361)	0.131 (0.400)
The child's family is in the richest t quintile	0.723*** (2.837)	-0.114 (-0.430)	-0.114 (-1.452)
The child lives in Chittagong division	-0.086 (-0.348)	-0.113 (-0.383)	0.220 (0.746)
The child lives in Dhaka division	-0.189 (-0.778)	-0.467 (-1.641)	0.404 (1.355)
The child lives in Khulna division	-0.091 (-0.342)	-0.761** (-2.549)	0.323 (1.008)
The child lives in Rajshahi division	-0.153 (-0.593)	-0.301 (-0.970)	0.429 (1.345)
The child lives in Rangpur division	-0.322 (-1.183)	-0.486 (-1.527)	0.528 (1.446)
The child lives in Sylhet division	-0.369 (-1.127)	-0.407 (-1.062)	0.044 (0.104)
Constant	-0.928*** (-3.342)	0.138 (0.405)	0.018 (0.048)
Observations	622	438	259

Note: z-statistics in parentheses; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## Annex 2: Early Learning Development Standards (ELDS)

<b>Physical and motor development</b>	<b>Social and emotional development</b>
<p>1.1.1.1: The child should be able to eat a variety of balanced and adequate nutritious food to achieve age-appropriate weight and height.</p> <p>1.1.2.1: The child should have adequate strength, stamina, and energy to participate in a variety of physical activities.</p> <p>1.2.1.1: The child should be able to use and coordinate large muscles for body movements and postures.</p> <p>1.2.2.1: The child should be able to use and coordinate movements of small muscles of hands and fingers.</p> <p>1.2.3.1: The child should be able to use her/his senses (see, hear, touch, smell, and taste) to guide motion.</p> <p>1.3.1.1: The child should be able to demonstrate ability to avoid harmful objects and situations.</p> <p>1.3.1.2: The child should be able to demonstrate awareness and understanding of safety rules/simple instructions.</p> <p>1.3.2.1: The child should be able to demonstrate personal care and oral hygiene skills.</p>	<p>2.1.1.1: The child should be able to trust and interact with familiar adults.</p> <p>2.1.1.2: The child should be able to ask for help when needed.</p> <p>2.1.2.1: The child should be able to interact positively and cooperatively with other children through play.</p> <p>2.1.3.1: The child should be able to take social cues from the environment and adjust her/his behavior accordingly.</p> <p>2.1.3.2: The child should be able to cooperate with others.</p> <p>2.1.3.3: The child should be able to adapt to diverse settings.</p> <p>2.1.3.4: The child should be able to take responsibilities, negotiate, and participate in decision making.</p> <p>2.1.3.5: The child should be able to demonstrate empathy for others and the natural world.</p> <p>2.2.1.1: The child should be able to recognize and express appropriate range of emotion (anger, joy, frustration, jealousy, fear, and so on).</p> <p>2.2.2.1: The child should be able to demonstrate her/his ability to understand and follow rules and routines.</p> <p>2.2.2.2: The child should be able to regulate her/his feelings and impulses.</p> <p>2.2.3.1: The child should be able to perceive herself/himself as unique individuals and demonstrate awareness of her/his own abilities.</p>

	<p>2.3.1.1: The child should be able to demonstrate honesty, respect for self and others, take responsibility, and should be able to accomplish tasks.</p> <p>2.3.2.1: The child should be able to love and respect family and community.</p> <p>2.3.3.1: The child should be able to show respect and love for Bangladeshi culture and heritage.</p> <p>2.3.4.1: The child should be able to understand the concept of unity and appreciate cultural and physical diversity.</p>
<b>Language and communication</b>	<b>Cognitive</b>
<p>3.1.1.1: The child should be able to listen and understand the spoken language</p> <p>3.2.1.1: The child should be able to use sounds, words, and gestures to communicate her/his thoughts and feelings.</p> <p>3.3.1.1: The child should be able to recognize written symbols, letters, and text with understanding.</p> <p>3.4.1.1: The child should be able to express idea through picture, symbol, and text.</p> <p>3.5.1.1: The child should be able to demonstrate competency in another language along with mother tongue.</p>	<p>4.1.1.1: The child should be able to demonstrate awareness of the natural environment and its relationship with humans beings.</p> <p>4.1.2.1: The child should be able to describe features and characteristics of human beings.</p> <p>4.1.2.2: The child should be able to collect information through observation and manipulation.</p> <p>4.1.2.3: The child should be able to engage in exploring the natural world by manipulating objects, asking questions, making predictions, and developing generalizations.</p> <p>4.1.2.4: The child should be able to observe and describe characteristics of living things.</p> <p>4.1.2.5: The child should be able to observe and describe characteristics of weather and seasons.</p> <p>4.1.2.6: The child should be able to use technology appropriately.</p> <p>4.1.3.1: The child should be able to differentiate between past, present, and future events.</p> <p>4.1.3.2: The child should be able to demonstrate awareness of location and spatial relationships.</p>

	<p>4.1.3.3: The child should be able to demonstrate knowledge of the relationship between people, places, and regions.</p> <p>4.1.3.4: The child should be able to demonstrate awareness of concepts of economics.</p> <p>4.1.3.5: The child should be able to demonstrate awareness of family characteristics and functions.</p> <p>4.1.3.6: The child should be able to demonstrate awareness of her/his community, human interdependence, and social roles.</p> <p>4.1.3.7: The child should be able to demonstrate civic responsibility.</p> <p>4.1.4.1: The child should be able to demonstrate knowledge of counting numbers.</p> <p>4.1.4.2: The child should be able to demonstrate knowledge and skills to operate with size, volume, height, weight, and length.</p> <p>4.1.4.3: The child should be able to identify and label shapes.</p> <p>4.1.4.4: The child should be able to sort, group, classify, and organize objects.</p> <p>4.2.2.1: The child should be able to develop basic concepts pertaining to object constancy, space, time, quantity, and so on and uses these as the basis for understanding how materials are categorized in her/his environment.</p> <p>4.3.1.1: The child should be able to communicate through artistic expressions and think and use things in new ways.</p> <p>4.3.2.1: The child should be able to demonstrate musical intelligence by creating various sounds, appreciating music, singing, and playing musical instruments.</p> <p>4.4.1.1: The child should be able to demonstrate awareness of cause and effect.</p>
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	<p>4.4.1.2: The child should be able to use past experiences to build new knowledge.</p> <p>4.4.1.3: The child should be able to find multiple solutions/answers to questions, tasks, problems, and challenges.</p>
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Source: MoWCA, Comprehensive Early Childhood Care and Development Policy 2009

### **Annex 3: Requirements for PPE classroom**

The Program Document of the Fourth Primary Education Development Program specifies the following criteria for all PPE classrooms:

- Schools have a well-decorated classroom for preprimary.
- Schools have a dedicated PPE classroom.
- Schools have a dedicated teacher for preprimary class.
- PPE teachers have received induction training on PPE as per standard training manual.
- PPE classroom and premises are safe and secure as per guideline.
- Classroom is organized and decorated as per classroom organization and decoration guideline developed by the DPE.
- All TLMs including play and stationery materials as per the approved list are available in classrooms.
- Mapping of preprimary age children and service providers in school catchment area is available STR is 30:1.
- Teachers follow class routine, annual work plan, and teaching-learning process stipulated in the teacher's guide.
- PPE class following continuous assessment guideline with updated record and no exam throughout the year.
- Maintaining daily attendance rate of 90 percent or more.
- Each PPE class organizes at least six structured parents' meeting a year following the guidelines.
- Each PPE class receives a structured supervisory visit and support from head teacher twice in a month.
- Each PPE class receives a structured monitoring visit and support from AUEO/UEO/URCI once in every quarter following a guideline.
- Dropout rate at a minimum.

According to Operational Framework for Preprimary Education, PPE centers are required to be set up either in a primary school or in a separate house having at least 250 square feet space for 20–30 children. It needs to be run by a trained teacher/caregiver (preferably supported by an

assistant) and a CMC having at least seven members including the teacher. The center's furnishing will include, at least, a small table and a chair for the teacher (for occasional use), one chalkboard, one bulletin board or wall hanger for hanging children's class work, and sitting mats for children. Children may sit in a 'U' shape formation, though sitting will be rearranged often for small group or individual work or other activities. There will be several corners for various activities and space outside class for outdoor activities. Provision for wall shelves for keeping children's work and learning materials will be desirable. Assessment of the existing baby classes attached with the GPSs will be carried out to provide necessary support for continuation as PPE in line with the policy.

## **Annex 4: Overview on IDELA**

### **Introduction of IDELA**

The International Development and Early Learning Assessment (IDELA) is an easy-to-use, rigorous global tool that measures children’s early learning and development. IDELA provides ECCD programs, donors, and government partners with evidence on the status of children aged 3.5–6 years. IDELA has been used in over 40 countries to successfully evaluate ECCD programs and provide reliable information to programs, communities, donors, and government partners. Evidence on child outcomes supports continuous improvement and highlights strengths and weaknesses in ECCD programs. IDELA captures age variation, equity factors, programmatic impact, and quality across different types of interventions

### **Emergent Literacy and Language**

The emergent literacy module assesses children’s oral language knowledge, decoding skills, writing skills, and oral comprehension. The percentage correct from each subskill is combined to generate an overall emergent literacy score (calculated as the total percent correct for all domain items divided by the total number of items in this domain multiplied by 100 percent). For the emergent literacy domain, children’s scores are calculated out of 55 total points. The marked increases in scores among children in both treatment and control groups from baseline to midline are calculated.

### **Emergent Numeracy**

The numeracy module of IDELA captures children’s emergent numeracy by testing a progression of skills that contribute to proficiency in mathematics. Specifically, the module assesses children’s knowledge of and ability to recognize numbers and patterns, compares quantities, and manipulates numbers through addition and subtraction. Across all subtasks within the numeracy domain, children can score a possible maximum of 43 points.

### **Executive Function**

In IDELA, executive function measures children’s short-term memory and their inhibitory control—cognitive processes that are necessary for controlling one’s behavior.

### **Approaches to Learning**

The IDELA module on approaches to learning attempts to gauge children’s readiness to learn by assessing children’s curiosity and eagerness to learn and their ability to tackle challenges, follow directions, and take risks.

### **Social-Emotional Development**

To measure social-emotional development, IDELA assesses skills that facilitate children’s ability to appropriately interact and build relationships with peers, authorities, and family. This module



specifically looks at children’s self-awareness, emotional awareness, and empathy and their ability to solve conflicts and scores out of a total of 25 points.

### Gross and Fine Motor Development

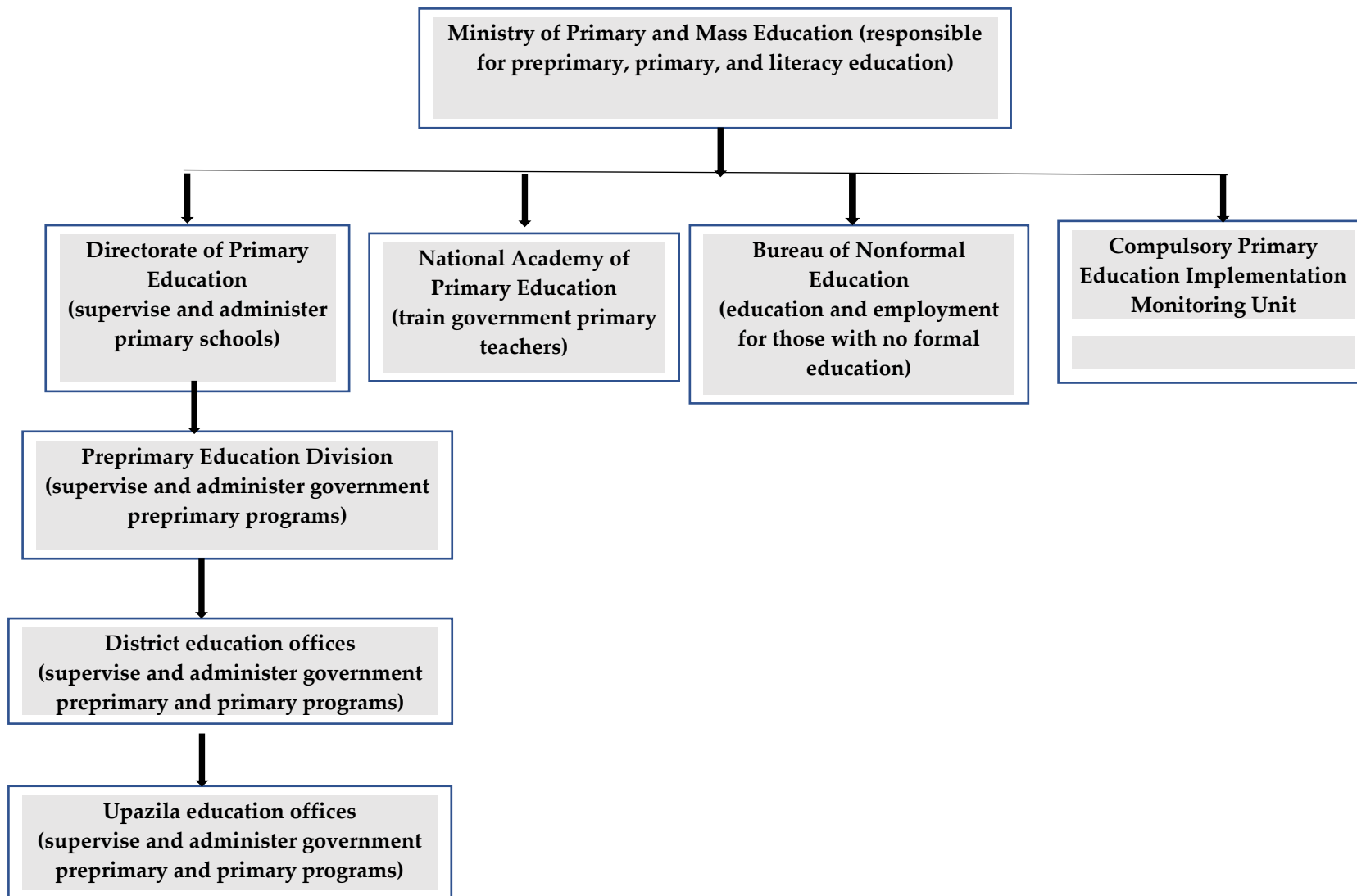
The final domain assessed by IDELA is children’s healthy motor development and functioning. The administration of this module has children hop, copy a shape, draw a person, and fold a piece of paper.

### Total Possible IDELA Points by Domain and Subskill

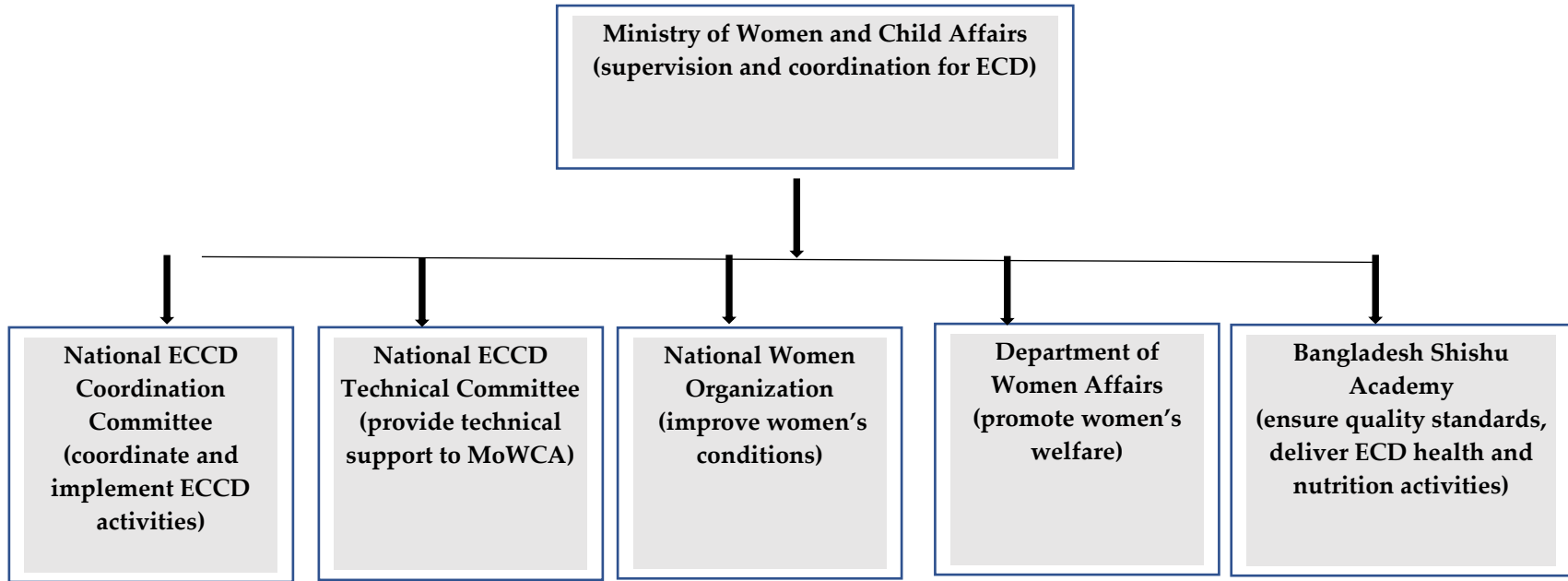
Domain	Subskill	Total possible point
<b>Panel A. Emergent Literacy</b>	Print awareness	3
	Expressive vocabulary	20
	Letter identification	20
	Emergent writing	4
	Phonemic awareness	3
	Listening comprehension	5
	Total	55
<b>Panel B. Emergent Numeracy</b>	Measurement and comparison	4
	Classification and sorting	2
	Number identification	20
	Shape identification	5
	One-to-one correspondence	3
	Addition and subtraction	3
	Simple problem solving (puzzle)	6
	Total	43
<b>Panel C. Executive Function</b>	Short-term memory	4
	Inhibitory control 6	6
	Total	10
<b>Panel D. Approaches to Learning</b>	Concentration and motivation	12
	Total	12
<b>Panel E. Social-Emotional</b>	Peer relationships	10
	Emotional awareness and regulation	4
	Empathy	3
	Self-awareness	6
	Conflict resolution	2
	Total	25
<b>Panel F. Motor Development</b>	Hopping on one foot	10
	Copying a shape	4
	Drawing a human figure	8
	Folding paper	4
	Total	26

Source: Bangladesh Early Years Preschool Program Impact Evaluation 2019.

### Annex 5: Organogram for PPE in MoPME



### Annex 6: Organogram for ECD in MoWCA



## Annex 7: Public Spending on ECE in Lower and Upper-Middle-Income Countries

	Government expenditure on PPE as a share of		
Country	GDP (%)	Government expenditure (%)	Government expenditure on education (%)
<b>Lower-middle-income countries</b>			
Bangladesh	0.02	0.07	2.05
Bolivia	0.36	0.83	4.98
Cambodia	0.05	0.23	2.63
Cabo Verde	0.07	0.26	1.59
Côte d'Ivoire	0.12	0.58	2.70
El Salvador	0.28	1.19	7.43
Ghana	0.44	1.53	7.30
Indonesia	0.05	0.31	1.75
Kenya	0.03	0.11	0.66
Kyrgyz Republic	0.58	1.54	10.66
Lao People's Democratic Republic	0.19	0.79	6.55
Mongolia	1.08	2.78	23.09
São Tomé and Príncipe	0.44	1.47	11.97
Timor-Leste	0.03	0.08	1.18
Ukraine	0.95	2.13	16.29
Vanuatu	0.005	0.02	0.10
<b>Upper-middle-income countries</b>			
Armenia	0.29	1.21	10.95
Azerbaijan	0.28	0.72	9.48
Belize	0.08	0.33	1.43
Bulgaria	1.02	2.89	25.33
Colombia	0.26	0.89	5.65
Costa Rica	0.41	..	6.07
Dominica	0.06	0.20	1.93
Dominican Republic	0.25	1.43	..
Ecuador	1.18	2.71	22.47
Gabon	0.10	0.43	3.84
Guatemala	0.54	4.08	18.59
Iran (Islamic Republic of)	0.005	0.03	0.19
Jamaica	0.20	0.73	3.37

Country	Government expenditure on PPE as a share of		
	GDP (%)	Government expenditure (%)	Government expenditure on education (%)
Kazakhstan	0.27	1.31	..
Malaysia	0.17	0.66	3.35
Maldives	0.41	1.22	11.84
Peru	0.61	2.68	16.58
Romania	0.33	0.99	10.75
Serbia	0.029	0.06	0.72
South Africa	0.09	0.29	1.53
Thailand	0.22	1.03	5.41

Source: UIS Database 2014; Bangladesh data from the Annual Fiduciary Statement, MoF, 2014.